ECONOMIC IMPACTS OF HISTORIC PRESERVATION IN MISSOURI

RESEARCH FUNDING AND OVERSIGHT

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STUDY OBJECTIVE AND ORGANIZATION

This study examines the many substantial economic effects of historic preservation in Missouri. It is, to date, one of the more detailed statewide analyses of the economic impacts of historic preservation.

The study examines the *total* economic effects of historic preservation; these encompass both the *direct* and *multiplier* effects. The *direct impact* component consists of labor and material purchases made specifically for the preservation activity. The *multiplier* effects incorporate what are referred to as *indirect* and *induced* economic consequences. The *indirect impact* component consists of spending on goods and services by industries that produce the items purchased for the historic preservation activity. The *induced impact* component focuses on the expenditures made by the households of workers involved either directly or indirectly with the activity. To illustrate, lumber purchased at a hardware store for historic rehabilitation is a direct impact. The purchases of the mill that produced the lumber is an indirect impact. The household expenditures of the workers at both the mill and the hardware store are induced impacts.

Economists estimate direct and multiplier effects using an input-output (I-O) model. This study specifies the total economic effects of the major components of historic preservation in Missouri through a state-of-the-art I-O model developed by the Center for Urban Policy Research (CUPR) for the National Park Service (NPS). The model is termed the Preservation Economic Impact Model (PEIM). The historic preservation components considered by the PEIM include *historic rehabilitation*, *heritage tourism*, and the Missouri *Main Street Program*. There is also an analysis of the *Missouri Historic Preservation Tax Credit* (MHPTC), which went into effect January 1, 1998. The MHPC is an innovative state strategy that offers a 25 percent state tax credit for the costs of qualified Missouri historic preservation projects.

The results of PEIM model include many fields of data. The fields most relevant to this study are the total impacts of the following:

- **Jobs:** *Employment, both part- and full-time, by place of work, estimated using the typical job characteristics of each industry.* (Manufacturing jobs, for example, tend to be full-time; in retail trade and real estate, part-time jobs predominate.) All jobs generated at businesses in the region are included, even though the associated labor income of in-commuters may be spent outside of the region. In this study, all results are for activities occurring within the time frame of one year. Thus, the job figures should be read as job-years; i.e., several individuals might fill one job-year on any given project.

- **Income:** *"Earned" or "labor" income—specifically, wages, salaries, and proprietors' income.* Income does not include nonwage compensation (i.e., benefits, pensions, or insurance), transfer payments; or dividends; interest, or rents.

- **Wealth**: *Value added—the equivalent at the subnational level of gross domestic product (GDP).* At the state level, this is called gross state product (GSP). Value added is widely accepted by economists as the best measure of economic well-being. It is estimated from state-level data by industry. For a firm, value added is the difference between the value of goods and services produced and the value of goods and nonlabor services purchased. For an industry, therefore, it is composed of labor income (net of taxes); taxes; nonwage labor compensation; profit (other than proprietors' income); capital consumption allowances; and net interest, dividends, and rents received.

- **Taxes**: *Tax revenues generated by the activity.* The tax revenues are detailed for the federal, state, and local levels of government. Totals are calculated by industry.

  Federal tax revenues include corporate and personal income, social security, and excise taxes, estimated from the calculations of value added and income generated.

  State tax revenues include income, excise, sales, and other state taxes, estimated from the calculations of value added and income generated (e.g., purchases by visitors).

  Local tax revenues include payments to substate governments, mainly through property taxes on new worker households and businesses. Local tax revenues can also include sales and other taxes.

The exposition includes six chapters and multiple appendices. The first chapter sets the overall perspective and is followed by a series of linked chapters that analyze, in tandem, the direct and the total effects of Missouri historic rehabilitation (chapter 2); Missouri heritage tourism (chapter 3); the Missouri Main Street Program (chapter 4); and the Missouri Historic Preservation Tax Credit (chapter 5); Chapter 6 summarizes the findings, sets them in perspective, and shows how the study's findings and analytic procedures can be used by others and inform policy discussion. The six chapters are followed by appendices that consider methodology, data, technical literature, and other matters.

The major findings of the study are highlighted below and also summarized in summary exhibits 1 and 2. In all instances, impacts are shown for the latest year(s) for which complete information was available at the time of the analysis.

SUMMARY EXHIBIT 1
Summary of the Annual Economic Impacts of Historic Preservation in Missouri

MISSOURI DIRECT EFFECTS		I ***Historic Rehabilitation*** $346 million annually of historic rehabilitation results in:	II ***Heritage Tourism*** $ 660 million annually of heritage travel-attributed spending, results in:	III ***Main Street Activity***† $5.4 million of construction annually plus 180 retail/service jobs results in:	***Total Examined Economic Impacts*** ($1.016 billion) ***(Sum I-III)***
↓	**National Total (Direct and Multiplier) Impacts**				
NATIONAL TOTAL IMPACTS (DIRECT AND MULTIPLIER)	Jobs	13,830	28,019	504	42,353
	Income	$459 million	$606 million	$13 million	$1,078 million
	GDP*	$678 million	$1,068 million	$20 million	$1,766 million
	Taxes: *Federal*	$79 million	$122 million	$2 million	$204 million
	Local/State	$65 million	$132 million	$3 million	$199 million
	Tax subtotal	$144 million	$254 million	$5 million	$402 million
↓	**In-State Missouri Total (Direct and Multiplier) Impacts**				
MISSOURI PORTION OF NATIONAL TOTAL IMPACTS	Jobs	8,060	20,077	359	28,496
	Income	$249 million	$325 million	$8 million	$582 million
	GSP*	$332 million	$574 million	$11 million	$917 million
	Taxes: *Federal*	$40 million	$68 million	$1 million	$110 million
	Local/State	$30 million	$79 million	$2 million	$111 million
	Tax subtotal	$70 million	$148 million	$3 million	$221 million
	In-state wealth*	$292 million	$506 million	$10 million	$807 million

Source: Rutgers University, Center for Urban Policy Research, 2001.

*GDP=Gross Domestic Product; GSP = Gross State Product; In-state wealth = GSP less federal taxes.

Note: Totals may differ from indicated subtotals because of rounding.

Net of associated historic rehabilitation and heritage tourism spending.

SUMMARY EXHIBIT 2

Summary of the Cumulative Economic Impacts of the Missouri Historic Preservation Tax Credit (MHPTC) As of August 2001 (Program Started in 1998)

MISSOURI DIRECT EFFECTS ↓		I ***Historic Rehabilitation*** $295 million MHPTC rehabilitation over 4 years(1998-2001) results in:	II ***Heritage Tourism*** $ 112 million heritage travel-attributed expenditures, supported by MHPTC rehabilitation over 20 years results in:	***Total Examined Economic Impacts*** ***(Sum I-II)***
	National Total (Direct and Multiplier) Impacts			
NATIONAL TOTAL IMPACTS (DIRECT AND MULTIPLIER) ↓	Person-years of work†	11,789	4,018	15,807
	Income	$391 million	$103 million	$494 million
	GDP*	$578 million	$181 million	$760 million
	Taxes: Federal	$67 million	$21 million	$88 million
	Local/State	$55 million	$22 million	$78 million
	Tax subtotal	$122 million	$43 million	$166 million
MISSOURI PORTION OF NATIONAL TOTAL IMPACTS	**In-State Missouri Total (Direct and Multiplier) Impacts**			
	Person-years of work	6,871	3,407	10,278
	Income	$212 million	$55 million	$267 million
	GSP*	$283 million	$97 million	$381 million
	Taxes: Federal	$34 million	$12 million	$46 million
	Local/State	$25 million	$13 million	$39 million
	Tax subtotal	$59 million	$25 million	$85 million
	In-state wealth*($000)	$249 million	$85 million	$335 million

Source: Rutgers University, Center for Urban Policy Research, 2001.

*GDP=Gross Domestic Product; GSP = Gross State Product; In-state wealth = GSP less federal taxes.

† "Person-years of work" are listed here rather than "jobs" as listed in Summary Exhibit 1 since the numbers represent an accumulation over four years. Thus, the same jobs are counted from one year to the next.

Note: totals may differ from indicated subtotals because of rounding.

Net of associated historic rehabilitation and heritage tourism spending.

ECONOMIC IMPACTS OF MISSOURI HISTORIC REHABILITATION

- In 2000, an estimated total of $2.1 billion was spent on the rehabilitation of existing residential and nonresidential buildings in Missouri.

- Of the $2.1 billion spent on rehabilitation, an *estimated* $310 million, or about 15 percent of the total, was spent on historic properties (older properties that were on, or might qualify for, national, state, and/or local registers of historic sites). An additional *estimated* $36 million was spent on rehabilitating historic public buildings, resulting in an *estimated* $346 million in total historic rehabilitation.

SUMMARY EXHIBIT 3
Estimated Rehabilitation Total and
Historic Building Rehabilitation in Missouri (2000)

Component	Estimated Total Rehabilitation (in $ millions)	Estimated Historic Rehabilitation (in $ millions)	Historic Rehabilitation as % of Total Rehabilitation
Private			
Residential	479.5	79.6	16.6
Nonresidential	1,606.2	230.3	14.3
Total Private	2,085.7	309.9	14.9
Public	—	35.6	—
Total	—	345.5	—

- The direct effects of historic rehabilitation are translated into multiplier effects, which encompass, as noted, such dimensions as *jobs* (employment by place of work), *income* (total wages, salaries, and proprietor's income), *gross domestic product* or GDP (total wealth accumulated, referred to at the state level as gross state product or GSP), *taxes* (federal, state, and local), and *in-state wealth* (GSP less "leakage" in the form of federal taxes).

- The total national economic impacts from the $346 million spent on statewide historic rehabilitation included the following: 13,830 new jobs; $459 million in income; $678 million in gross domestic product; and $144 million in taxes. Missouri garnered about 50 to 60 percent of these economic benefits and, as a result, captured 8,060 jobs; $249 million in income; $332 million in gross state product; $70 million in taxes (including $30 million in state-local taxes); and $292 million in in-state wealth. The other effects were distributed outside Missouri.

SUMMARY EXHIBIT 4
Total Economic Impacts of the Annual Missouri Historic Building Rehabilitation ($346 Million)

	In Missouri	Outside Missouri	Total (U.S.)
Jobs (person years)	8,060	5,770	13,830
Income ($millions)	249	210	459
GDP/GSP[a] ($millions)	332	346	678
Total taxes ($millions)	70	74	144
Federal ($millions)	40	39	79
State/Local ($millions)	30	35	65
In-State wealth ($millions) (GSP minus federal taxes)	292	—	—

[a]GDP/GSP = Gross Domestic Product/Gross State Product.

- The economic benefits from the historic rehabilitation are enjoyed throughout the Missouri economy. For instance, of the 8,060 in-state jobs, the construction, services, and retail industries captured 3,590, 1,291 and 1,062 jobs, respectively.

ECONOMIC IMPACTS OF MISSOURI HERITAGE TOURISM

- During the 1995 through 1999 period, an estimated annual 3.240 million heritage person-trips were made on average in Missouri (0.335 million day trips and 2.905 million overnight trips). The 3.240 million heritage person-trips accounted for slightly more than 1 in 10 (10.2 percent) of all 1995–1999 annual person-trips (32.065 million) in Missouri.

SUMMARY EXHIBIT 5
Annual Average Person-Trip Distribution for Missouri (1995–1999)

Traveler Trip	All Missouri Person-Trips (in millions)	Heritage Person-Trips[a] (in millions)	Heritage as Percent of All Missouri Travel
Day trip	11.366	.335	2.9
Overnight	20.699	2.905	14.0
All trips (day and overnight)	32.065	3.240	10.2

[a]Defined as a business or leisure traveler indicating "visit historic site" or other related trip purpose.

- Compared with all Missouri travelers, heritage travelers, on average, spend considerably more. Furthermore, a much higher share of Missouri' heritage travelers come from out of state (81 percent for the heritage group versus 68 percent for all Missouri travelers). These traits combined accentuate the economic contribution of the Missouri heritage traveler.

SUMMARY EXHIBIT 6
Annual Average Spending per Person-Trip for Missouri (1995–1999)

Trip Type	All Missouri Travelers	Heritage Traveler	Heritage as % of All Missouri Travelers
Day trip	$102	$150	147%
Overnight	$242	$265	109%

- Direct heritage-attributed expenditures (the share of total traveler outlays that is heritage-associated) by Missouri heritage day-trippers and overnight visitors averaged $660 million annually over the 1995 through 1999 period.

SUMMARY EXHIBIT 7
Annual Average Heritage Trip Spending for Missouri (1995–1999)

Trip Type	Heritage Trips
Day trips	$39.2 million
Overnight Trips	$620.8 million
All Trips (Day and Overnight)	$660.0 million

- The total annual economic impacts from the $660 million in annual spending by Missouri heritage travelers, encompassing both direct and multiplier effects, included, at the national level, the following: 28,019 jobs; $606 million in income; $1.068 billion in gross domestic product; and $254 million in taxes. Missouri received a large share of these gains. On an annual basis from the heritage tourism, Missouri realized 20,077 jobs; $325 million in income; $574 million in gross state product; $148 million in taxes (including $79 million in state-local taxes); and annual in-state wealth creation of about $506 million.

SUMMARY EXHIBIT 8
Total Economic Impacts of the Annual Missouri Heritage Tourism Spending ($660 Million Spent)

	In Missouri	Outside Missouri	Total (U.S.)
Jobs (person years)	20,077	7,942	28,019
Income ($millions)	325	281	606
GDP/GSP ($millions)	574	494	1,068
Total taxes ($millions)	148	106	254
Federal ($millions)	68	54	122
State/Local ($millions)	79	53	132
In-state wealth ($millions) (GSP minus federal taxes)	506	____	____

[a]GDP/GSP = Gross Domestic Product/Gross State Product.

- The economic benefits of the Missouri heritage tourism are enjoyed throughout the Missouri economy. For instance, of the $574 million in gross state product, the retail trade, services, and transportation industries garnered $196 million, $195 million, and $34 million, respectively.

ECONOMIC IMPACTS OF THE MISSOURI MAIN STREET PROGRAM

- As other states, Missouri has a Main Street program to help revitalize downtown areas.

- In FY1999, the Missouri Main Street Program resulted in the following investment.

SUMMARY EXHIBIT 9
Missouri Main Street Program Investment (FY1999)

Component	In $ Millions
Rehabilitation	4.8
New construction	1.5
Buildings sold	0.4
Joint ventures	0.3
Total	7.0

- If we *net* out the buildings sold from the above tally (since that component does not have the same economic impact as the construction and other investments), as well as rehabilitation and other preservation outlays previously tallied[1] (since we

[1]This figure is net of outlays for capital purposes and visitor-supported revenues. The capital outlays and visitor revenues are netted out because these spending components have already been included in the historic rehabilitation and the heritage tourism economic calculations, respectively.

want to avoid double counting), the average annual Missouri Main Street investment is roughly $5.4 million of construction plus retail job benefits.

- The total national economic impacts, including both direct and multiplier effects, from the annual average Missouri Main Street investment included a gain of 504 jobs, $13 million in income, $20 million in gross domestic product, and $5 million in taxes. The in-state Missouri gains were roughly 50 to 80 percent of the above-cited figures (see below) with in-state wealth creation of $10 million.

SUMMARY EXHIBIT 10
Total Economic Impacts of the Annual Net Missouri Main Street Investment

	In Missouri	Outside Missouri	Total (U.S.)
Jobs (person years)	359	145	504
Income ($million)	8	5	13
GDP/GSP[b] ($million)	11	9	20
Total taxes ($million)	3	2	5
Federal ($million)	1	1	2
State/Local ($million)	2	1	3
In-state wealth ($million) (GSP minus federal taxes)	10	—	—

[b]GDP/GSP=Gross Domestic Product/Gross State Product.

ECONOMIC IMPACTS OF THE MISSOURI HISTORIC PRESERVATION TAX CREDITS (MHPTC)

- As of August 2001, almost $295 million of historic rehabilitation had cumulatively been effected under MHPTC auspices. (The MHPTC was created in 1998 and noticeable activity did not take place until 1999.)

- A 25 percent state tax credit amounting to about $74 million encouraged the MHPTC investment.

- The MHPTC has economic effects from both the historic rehabilitation (i.e., construction) it engenders and from the historic tourism it supports (i.e., renovating Missouri's historic resources fosters visitation from heritage-oriented tourists). The former (rehabilitation) is a one-time benefit, while the latter (tourism) is an on-going benefit.[2]

MHRTC Historic Rehabilitation Economic Impacts

- The total national economic impacts from the $295 million cumulative MHPTC historic rehabilitation investment included the following: 11,789 person-years of

[2]This study measures tourism's benefits from the MHPTC over 20 years. That enhanced tourism spending is estimated at $112 million over this two-decade period.

work[3]; $391 million in income; $578 million in gross domestic product; and $122 million in taxes. From the cumulative MHPTC historic rehabilitation, the state of Missouri garnered 6,871 person-years of work; $212 million in income; $283 million in gross state product; $60 million in total taxes (including $25 million in Missouri state and local taxes); and $249 million in in-state wealth.

SUMMARY EXHIBIT 11
Total Economic Impacts of the Cumulative
MHRTC-Supported Historic Rehabilitation ($295 million)

	In Missouri	Outside Missouri	Total (U.S.)
Jobs (person-years of work)	6,871	4,918	11,789
Income ($million)	212	179	391
GDP/GSP ($million)	283	295	578
Total taxes	59	63	122
Federal ($million)	34	33	67
State/Local ($million)	25	30	55
In-State Wealth (GSP Minus Federal Taxes)	249	—	—

Notes: Totals may differ from indicated subtotals because of rounding.
GDP/GSP = Gross Domestic Product/Gross State Product

- The economic benefits from the MHPTC-supported historic rehabilitation are enjoyed throughout the Missouri economy. For instance, of the $283 million in gross state product, the construction, services and manufacturing sectors of the Missouri economy gained $116 million, $47 million, and $34 million, respectively.

MHPTC-Supported Historic Tourism Economic Impacts

- In addition to the above construction-driven consequences, the historic tourism support from the cumulative $295 million MHPTC investment will realize over two decades the national and state benefits shown below. State of Missouri historic tourism gains from the MHPTC include: 3,407 person-years of work[4]; $55 million in income; $97 million in gross state product; and $25 million in taxes (including $13 million in state–local taxes).

[3] "Person-years of work" as opposed to "jobs" are noted in MHPTC impacts since the same jobs may be counted across time.
[4] "Person-years of work" as opposed to "jobs" are noted in MHPTC impacts since the same jobs may be counted across time.

SUMMARY EXHIBIT 12
Total Economic Impacts of the Cumulative
MHPTC-Supported Heritage Tourism ($112 million)

	In Missouri	Outside Missouri	Total (U.S.)
Jobs (person-years of work)	3,407	611	4,018
Income ($millions)	55	48	103
GDP/GSP ($millions)	97	84	181
Total taxes ($millions)	25	18	43
Federal ($millions)	12	9	21
State/Local ($millions)	13	9	22
In-State Wealth ($millions)	85	—	—

Note: GDP/GSP = Gross Domestic Product/Gross State Product.

- The *total* economic impact from the MHPTC, including *both* the rehabilitation and tourism benefits, are shown in Summary Exhibit 2. There are benefits to both the nation and state. Missouri garners: 10,278 person-years of work; $267 million in income; $381 million in gross state product; $85 million in taxes (including $39 million in state/local taxes); and $335 million in in-state wealth. These effects are felt throughout the Missouri economy.

SUMMARY OF BENEFITS

In sum, historic preservation in Missouri is not just important culturally and aesthetically, it also fosters significant economic activity and benefits in its own right.

- Annual direct economic effects, calculated conservatively, include $346 million in historic rehabilitation spending, $660 million in heritage tourism spending, about $5 million in net[5] Main Street Program activity—for a total of slightly over $1 billion annually. Since its inception in 1998, the Missouri Historic Preservation Tax Credit Program (HPTC) has cumulatively amounted to about $300 million in rehabilitation investment. The MHPTC, spurred by cumulative state assistance of about $75 million in credits (about $25 million yearly), contributes to the $1 billion of annual Missouri historic preservation activity.

- When multiplier effects are taken into account from the $1 billion annual investment, the total annual impacts to the nation include a gain of about 42,000 jobs; $1.078 billion in income; $1.766 billion in GDP; and $402 million in taxes. The in-state Missouri benefits include a gain of about 28,000 jobs; $582 million in income, $917 million in GSP, $221 million in taxes (including $111 million in state/local taxes), and $807 million in in-state wealth (Summary Exhibit 1).

[5]Net of the historic rehabilitation and heritage tourism components.

- A further detailed breakdown of the economic benefits from the $1 billion in direct historic preservation spending is shown in Summary Exhibit 13 (national impacts) and Summary Exhibit 14 (in-state or Missouri-specific effects). The exhibits show that although all sectors of the economy benefit, many of the 42,353 new jobs at the national level are found in such industries as services (11,543 jobs), retail trade (13,248 jobs), manufacturing (5,299 jobs), and construction (4,784 jobs). National income and GDP effects are also clustered in the above sectors (Summary Exhibit 13).

- A similar pattern is observed for Missouri (Summary Exhibit 14). Of the 28,496 Missouri jobs annually supported by historic preservation, 8,541 are in services, 11,565 are in retail trade, and construction and manufacturing garner 3,773 and 1,369 jobs, respectively. The total in-state income gain of $582 million resulting from historic preservation concentrates in such industries as services ($157 million), retail trade ($130 million), and construction and manufacturing ($130 million and $38 million). Yet, because of the interconnectedness of the Missouri economy, *all* sectors benefit. For example, historic preservation supports almost 350 agricultural-mining jobs in Missouri, with associated income of about $6 million.

- Given the powerful economic pump-priming effect of historic preservation, public programs to foster preservation can realize sizable economic development gains. The Missouri Historic Preservation Tax Credit Program has been doing just that. The economic gains from the MHPTC-supported activity offset much of the state cost of this program.

SUMMARY EXHIBIT 13
National Economic and Tax Impacts of Annual
Missouri Historic Preservation Activity ($1.016.8 billion)

	Economic Component		
	Employment (jobs)	**Income (000$)**	**Gross Domestic Product (000$)**
I. TOTAL EFFECTS (Direct and Indirect/Induced)*			
Private			
1. Agriculture	518	8,560	33,603
2. Agri. Serv., Forestry, & Fish	378	8,639	9,546
3. Mining	307	8,985	33,202
4. Construction	4,784	158,436	187,790
5. Manufacturing	5,299	178,182	296,197
6. Transport. & Public Utilities	1,834	69,070	149,534
7. Wholesale	1,403	65,197	97,392
8. Retail Trade	13,248	167,429	280,143
9. Finance, Ins., & Real Estate	2,718	150,654	285,773
10. Services	11,543	251,730	381,733
Private Subtotal	42031	1,066,882	1,754,913
Public			
11. Government	322	11,257	10,810
Total Effects (Private and Public)	42,353	1,078,139	1,765,724
II. DISTRIBUTION OF EFFECTS/MULTIPLIER			
1. Direct Effects	21,237	363,160	568,667
2. Indirect and Induced Effects	21,117	714,979	1,197,057
3. Total Effects	42,353	1,078,139	1,765,724
4. Multipliers (3/1)	1.99	2.97	3.11
III. COMPOSITION OF GROSS STATE PRODUCT			
1. Wages—Net of Taxes			1,003,602
2. Taxes			
a. Local/State			198,878
b. Federal			
General			118,040
Insurance Trusts			85,567
Federal Subtotal			203,607
c. Total taxes (2a+2b)			402,485
3. Profits, dividends, rents, and other			359,637
4. Total Gross State Product (1+2+3)			1,765,724
EFFECTS PER MILLION DOLLARS OF INITIAL EXPENDITURE			
Employment (Jobs)			41.7
Income			1,060,326
Local/State Taxes			195,592
Gross State Product			1,736,550

Note: Detail may not sum to totals due to rounding.

*Terms:

Direct Effect (State)—the proportion of direct spending on goods and services produced.

Indirect Effects—the value of goods and services needed to support the provision of those direct economic effects.

Induced Effects—the value of goods and services needed by households that provide the direct and indirect labor.

SUMMARY EXHIBIT 14
In-State Economic Impacts of Annual
Missouri Historic Preservation Activity ($ 1.016.8 billion)

	Economic Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
I. TOTAL EFFECTS (Direct and Indirect/Induced)*			
Private			
1. Agriculture	109	802.9	3,295.0
2. Agri. Serv., Forestry, & Fish	160	3,218.3	2,971.7
3. Mining	71	2,219.2	4,638.4
4. Construction	3,773	130,228.3	152,252.5
5. Manufacturing	1,369	37,909.2	63,043.4
6. Transport. & Public Utilities	735	24,454.7	52,196.2
7. Wholesale	582	23,300.1	35,503.1
8. Retail Trade	11,565	129,833.3	225,097.3
9. Finance, Ins., & Real Estate	1,426	67,930.2	122,967.8
10. Services	8,541	156,984.6	250,709.1
Private Subtotal	28333	576,880.7	912,674.4
Public			
11. Government	163	4,947.9	4,656.9
Total Effects (Private and Public)	28,496	581,828.6	917,331.3
II. DISTRIBUTION OF EFFECTS/MULTIPLIER			
1. Direct Effects	19,587	328,171.6	515,132.7
2. Indirect and Induced Effects	8,909	253,657.0	402,198.6
3. Total Effects	28,496	581,828.6	917,331.3
4. Multipliers (3/1)	1.455	1.773	1.781
III. COMPOSITION OF GROSS STATE PRODUCT			
1. Wages--Net of Taxes			550,157.8
2. Taxes			
a. Local/State			110,625.1
b. Federal			
General			64,207.4
Insurance Trusts			45,862.0
Federal Subtotal			110,069.4
c. Total taxes (2a+2b)			220,694.5
3. Profits, dividends, rents, and other			146,479.1
4. Total Gross State Product (1+2+3)			917,331.3
EFFECTS PER MILLION DOLLARS OF INITIAL EXPENDITURE			
Employment (Jobs)			28.0
Income			572,215
Local/State Taxes			108,797
Gross State Product			902,175

Note: Detail may not sum to totals due to rounding.

*Terms:

Direct Effect (State)—the proportion of direct spending on goods and services produced.

Indirect Effects—the value of goods and services needed to support the provision of those direct economic effects.

Induced Effects—the value of goods and services needed by households that provide the direct and indirect labor.

CHAPTER ONE

Background to the Analysis of the Economic Impacts of Historic Preservation

THE NEED FOR INFORMATION ON THE ECONOMIC IMPACTS OF HISTORIC PRESERVATION

Until almost the mid-twentieth century, the idea of historic preservation was alien to the American reverence for the new. There were but a handful of exceptions. Independence Hall, slated for demolition, was purchased by the City of Philadelphia in 1816, and Mount Vernon was saved by a valiant private women's group in the 1860s. Private philanthropy from the Rockefeller family helped restore Colonial Williamsburg in the mid-1920s. In the mid-1930s, there was some nascent public preservation action. The federal government, authorized by the 1935 Historic Sites Act, began identifying nationally significant landmarks on the National Register of Historic Sites and Buildings. From the 1930s to the 1950s, a handful of communities, most notably New Orleans and Charleston (South Carolina), established local preservation commissions to identify and protect selected historic districts.

These preservation activities, however, were the exceptions. More typical was destruction of even acknowledged landmarks. Pennsylvania Station in New York City is a prime example. Federal programs, ranging from urban renewal to the interstate highway systems, fueled the demolition of the nation's historic built environment. Partly in reaction to the widespread loss of historic properties, a regulation system for preservation had developed by the 1960s. At the federal level, the National Historic Preservation Act (NHPA) of 1966 created a National Register of Historic Places and a review process, Section 106 of the NHPA, to evaluate federal undertakings that threatened National Register eligible resources. With federal funds from the NHPA, state historic preservation offices (SHPOs) were established to help identify sites and structures to be placed on the National Resister. Many states further enacted "mini-106" procedures to evaluate state and local government actions that threatened historic properties; Missouri was not one of those states.

Most significant was the establishment of local preservation commissions (LPCs). LPCs were created to identify historic resources and then take appropriate action to designate these resources as landmarks. Once designated, the landmarks could not be demolished, nor could their facades be altered in a historically inaccurate fashion without the approval of the LPCs; at minimum, these actions would be delayed pending LPC review.

In a short period of time, historic preservation has mushroomed in scope. There were about 1,000 entries on the National Register of Historic Places in 1968; today there are nearly 70,000. There have been almost 50,000 Section 106 reviews. In a few years, the National Trust for Historic Preservation's Main Street Program, designed to revitalize older downtowns, has grown from a handful to hundreds of successful examples nationwide. Local historic commissions totaled only about 20 as of the mid-1950s. Civic spirit fueled by the Bicentennial increased that number to 100, and today there are almost 2,000 local commissions. Other barometers of historic preservation activity also show quantum increases (exhibit 1.1); still, preservation remains the exception rather than the rule.

Preservation has accomplished much. Icons that have been saved, such as Grand Central Station in New York, are important to the perception of quality of life. Less dramatic, but equally as important, is the preservation of thousands of residential neighborhoods and downtowns throughout the United States.

EXHIBIT 1.1
Growth of Historic Preservation Activity: Selected Indicators

FISCAL YEAR	Annual Listings on National Register of Historic Places (entries)	Cumulative Listings on National Register of Historic Places (entries)	Annual Advisory Council Section 106 Review (cases)	Cumulative Advisory Council Section 106 Review (cases)	Local Historic District Commissions	Annual Historic Preservation Fund (millions of dollars)	Cumulative Historic Preservation Fund (millions of dollars)	Annual Rehab Tax Credit Investment (millions of dollars)	Cumulative RehabTax Credit Investment (millions of dollars)	Annual Tax Credit Projects Approved	Cumulative Tax Credit Projects Approved
1955					20						
1966					100						
1967			0	0							
1968	1,204	1,204	5	5		$0.3	$0.3				
1969	359	1,563	22	27		0.1	0.4				
1970	832	2,395	57	84		1.0	1.4				
1971	1,026	3,421	81	165		6.0	7.4				
1972	1,533	4,954	152	317		6.0	13.4				
1973	2,162	7,116	311	628		7.5	20.9				
1974	2,151	9,267	689	1,317		11.5	32.4				
1975	1,987	11,254	1,104	2,421		20.0	52.4				
1976	2,284	13,538	2,263	4,684	492	24.8	77.2				
1977	1,563	15,101	2,369	7,053		17.5	94.7				
1978	3,120	18,221	1,759	8,812	578	45.0	139.7	$140	$140	512	512
1979	2,783	21,004	2,264	11,076		60.0	199.7	300	440	635	1,147
1980	3,027	24,031	1,623	12,699		55.0	254.7	346	786	614	1,761
1981	518	24,549	2,700	15,399		26.0	280.7	738	1,524	1,375	3,136
1982	3,140	27,689	1,827	17,226	832	25.4	306.1	1,128	2,652	1,802	4,938
1983	4,525	32,214	2,261	19,487	1,000	51.0	357.1	2,165	4,817	2,572	7,510
1984	3,814	36,028	2,241	21,728		27.5	384.6	2,123	6,940	3,214	10,724
1985	994	37,022	1,094	22,822		25.5	410.1	2,416	9,356	3,117	13,841
1986	3,401	40,423	1,400	24,222		23.7	433.8	1,661	11,017	2,964	16,805
1987	2,498	42,921	2,453	26,675		24.3	458.1	1,084	12,101	1,931	18,736
1988	2,035	44,956	1,700	28,375		28.3	486.4	866	12,967	1,092	19,828
1989	3,157	48,113	2,186	30,561		30.5	516.9	927	13,894	994	20,822
1990	2,285	50,398	1,544	32,105		32.9	549.8	750	14,644	814	21,636
1991	3,834	54,232	1,647	33,752		34.5	584.3	735	15,379	678	22,314
1992	1,837	56,069	2,000	35,752		35.5	619.8	777	16,156	719	23,033
1993	1,539	57,608	2,332	38,084	1,863	36.9	656.7	547	16,703	538	23,571
1994	1,718	59,326	2,911	40,995		40.0	696.7	483	17,186	560	24,131
1995	1,514	60,840	2,831	43,826	2,000+	41.4	483.0	569	17,755	621	24,752
1996	1,426	62,266	3,148	46,974		36.2	774.3	757	18,512	724	25,476
1997	1,685	63,951	2,667	49,641		36.6	810.9	688	19,200*	902	26,378*

There is a slight error in these annual figures. The National Center for Cultural Resource Stewardship and Partnerships, within the U.S. Department of the Interior, National Park Service, reports that cumulatively as of FY1997, $18.83 billion has been invested, comprising 26,676 projects. Further of note is that the annual rehab tax credit investment shown here is “certified investment” which differs from the “estimated investment” shown in Figure 1.

The aesthetic and quality-of-life benefits of preservation are generally acknowledged. However, doubts are often expressed about the quantifiable economic contribution of preservation. While proponents of investment in such areas as public infrastructure and new housing construction tout the job, income, and other financial benefits of their respective activities, historic preservationists are much less vocal about the economic benefits that accrue from their activities.

A dearth of information on the economic benefits of preservation has unfortunate consequences, especially in competing for public and other support. Take, for instance, the federal preservation tax incentive (hereafter referred to as the FPTI). Initiated in the late 1970s, the FPTI has generated $19.2 billion in investment in historic preservation, encompassing about 26,000 separate projects. The FPTI is the most significant federal financial support for preservation, eclipsing even the Historic Preservation Fund that supports SHPOs (see exhibit 1.1). Despite its accomplishments, the FPTI has been under assault from those working to reduce federal tax incentives. In 1986, the FPTI tax credit was reduced from 25 to 20 percent, and there are periodic calls for further reductions or even elimination of the FPTI. Critics of the FPTI cite its costs to the Federal Treasury. Preservationists, however, have failed to document the FPTI's full economic benefits. This omission, in part due to the fact that a methodology for documenting the FPTI's benefits is not readily at hand, puts preservationists at a competitive disadvantage compared with those arguing for federal tax breaks for other investments (e.g., capital gains and infrastructure), who can marshal arrays of statistics to support their respective causes.

Parallel developments exist at the state level. As the federal government has cut back and states have ascended as implementers and funders, state activity has become more significant in historic preservation. It is no accident that a recent publication from the National Trust for Historic Preservation is entitled *Smart States, Better Communities* (Beaumont 1997). Numerous states, including Florida, Maryland, Texas, and Vermont, have passed bond issues to foster preservation. But there are many demands on the public purse, and preservation is in competition for state support for other investments ranging from adding new or rehabilitating existing highways to providing affordable mortgages for new housing. Preservationists often do not have hard numbers on the economic benefits of their projects, unlike the proponents of competing investments. The same is true when other state preservation incentives are proposed, such as a state income tax credit. State legislators might be more inclined to support such a credit if they were presented with evidence that their home constituencies would benefit from increased jobs, income, and spending as a result of the credit-induced preservation. Yet, such evidence is often not readily available because the procedures for measuring the economic benefits deriving from preservation projections are not developed.

In summary, the dearth of "hard" economic numbers on preservation and the lack of procedures to quantify these benefits have significant adverse implications. This is unfortunate, since historic preservation generates extensive economic benefits. In fact, preservation's benefits surpass those yielded by such alternative investments as infrastructure and new housing construction.

This study documents the benefits of preservation and develops procedures for assessing its economic effects that others may apply. The focus of the study is the state of Missouri. Few previous analyses have examined the economic impacts of historic preservation at a

statewide level to the scope and detail of this study. To set the perspective for the current investigation, prior literature is briefly reviewed here. (An extensive listing of relevant literature and annotations of critical studies are contained in the bibliography in appendix A.)

PRIOR LITERATURE ON THE ECONOMIC IMPACTS OF HISTORIC PRESERVATION

Studies conducted in the late 1970s and early 1980s, although nominally addressing the economic benefits of historic preservation, focused less on economic benefits and more on financial feasibility. (This was a time when the feasibility of preservation vis-à-vis new construction was still an issue.) For example, *The Economic Benefits of Preserving Old Buildings* (National Trust for Historic Preservation 1982) considered such topics as hidden assets of old buildings, the costs of preservation, the types of government grants available for the preservation process, and the advantages of historic preservation from a private financier's viewpoint.

Some of the early literature did introduce economic effects into the discussion, typically in anecdotal or case-study fashion. For instance, *The Contributions of Historic Preservation to Urban Revitalization* (Advisory Council on Historic Preservation [ACHP] 1979) investigated the effect of historic preservation activities in Alexandria (Virginia), Galveston (Texas), Savannah (Georgia), and Seattle (Washington). According to the ACHP, historic designation and attendant preservation activities provide many benefits, including saving important properties from demolition, fostering construction, and providing a concentrated area of interest to attract tourists and metropolitan-area visitors. Designation also was found to have the beneficial effect of strengthening property values—an impact documented by comparing the selling prices of buildings located within versus outside the historic districts in Alexandria and other cities studied.

The economic topics considered by the Advisory Council on Historic Preservation in 1979—preservation's relationship to property values, tourism, and construction—have been revisited numerous times, typically on a case-study basis (see bibliography). For instance, Samuels (1981) examined increases in property values in designated historic neighborhoods in Washington, D.C. Schaeffer and Ahern (1988), Benson and Klein (1988), Ford (1989), Gale (1991), and Leithe et al. (1991) did similar property value analyses in Chicago, Cleveland, Baltimore, Washington, D.C., and Galveston, respectively.

Construction and tourism effects from preservation have also been studied by numerous authors. For instance, Lane (1982) and Johnson and Sullivan (1992) examined the tourism benefits of Civil War battlefield visitation. Avault and Van Buren (1985) examined the economic contributions of historic rehabilitation construction activity in Boston, and a similar analysis was done in Atlanta by the Center for Business and Economic Studies (1986).

Our review of the existing literature shows some changes over time. The geographical scale of analysis in considering economic impact has expanded. Whereas earlier the focus was typically a neighborhood or two (e.g., Philadelphia's Society Hill or Seattle's Pioneer Square), investigations are now more commonly citywide (e.g., Fredericksburg, Virginia, and Galveston, Texas), and there have been some examples of statewide studies, such as

in Virginia (Preservation Alliance of Virginia 1996) and Rhode Island (University of Rhode Island 1993). In combination, some of these more geographically broad studies have examined not only the direct but the total economic effects of historic preservation, the latter including multiplier benefits to the larger state and regional economies.

For example, the University of Rhode Island (1993) reviewed the impacts of the Rhode Island Historical Preservation Commission's (RIHPC) programs on the state economy in the areas of employment, wages, value added, and tax revenues generated. To that end, the study used computer models of the state economy to incorporate both direct and multiplier impacts. The study found that the greatest impacts of RIHPC's programs were in the construction-related industries, with retail sales and service industries affected positively as well.

A methodology for examining the total (direct and multiplier) impacts of preservation was developed by Joni Leithe, Thomas Muller, John Peterson, and Susan Robinson of the Government Finance Research Center (Leithe et al. 1991) for the National Trust for Historic Preservation. This work, important to the field, included approaches for estimating the benefits of construction activity, real estate activity (e.g., historic property value appreciation), and commercial activity (e.g., enhanced tourism). Leithe et al. applied the methodology in Fredericksburg, Virginia, and Galveston, Texas (Government Finance Officers Association 1995). For instance, in Fredericksburg, historic preservation was found to have the following effects:

- Over an eight-year period, 777 projects totaling $12.7 million were undertaken in the historic district. These projects created approximately 293 construction jobs and approximately 284 jobs in sales and manufacturing.

- Property values, both residential and commercial, experienced a dramatic increase. Between 1971 and 1990, residential property values in the historic district increased an average of 674 percent as compared with a 410 percent average increase in properties located elsewhere in the city.

- In 1989 alone, $11.7 million in tourist purchases were made within the historic district, and another $17.4 million outside the district, with secondary impacts resulting in $13.8 million.

No overview of literature on the subject would be complete without mentioning *The Economics of Historic Preservation* by Donovan Rypkema (1994), which compiled results from numerous studies showing the economic benefits of preservation. Rypkema also was the author of the Virginia report (Preservation Alliance of Virginia 1996) that summarized how preservation benefited the state's economy through tourism, construction, business development, and property value enhancement. Rypkema's numerous and important contributions to the field are noted in the bibliography to this study.

We should also note a study by the authors of the current investigation that focused on the states of New Jersey and Texas (Listokin and Lahr 1997; 1999). The New Jersey and Texas reports considered the direct and total (with multiplier) effects of different components of historic preservation in these states, including historic rehabilitation, heritage tourism, and the operation of such preservation efforts as the Main Street

Program. The current analysis considers the similar aspects of historic preservation in Missouri.

CURRENT STUDY SCOPE AND METHODOLOGY

The current investigation builds from, and adds to, the state of the art as reflected in the extant literature. Some of the distinguishing characteristics of the current study are its

1. statewide scope
2. development of preservation-specific data
3. comprehensive linked analysis
4. use of a state-of-the-art input-output model

Statewide Scope

The current investigation is truly statewide in scope. It estimates statewide figures on the amount of historic rehabilitation, heritage tourism, and Main Street investment. Other state investigations have not done this to the same scale. For instance, the Virginia study (Preservation Alliance of Virginia 1996) examined construction impacts from the rehabilitation of some Virginia historic properties, but did not conduct a full inventory of such state activity since this information was simply not available.

Development of Preservation-Specific Data

Some other studies have developed preservation-specific information, such as the profile and spending of heritage versus nonheritage tourists (Preservation Alliance of Virginia 1996), but few do this to the extent accomplished here. Thus, the chapter on heritage tourism in this study develops side-by-side profiles of all tourists (historic and nonhistoric), as well as such subgroups as heritage versus nonheritage day-trippers, and heritage versus nonheritage overnighters. This side-by-side profiling is accomplished for many types of characteristics, such as demographic background, trip origin, and trip spending, with the latter differentiated into numerous components. The point is not detail for detail's sake, but rather that the more precisely the profile and spending of heritage travelers is detailed, the more precise will be the projection of economic impact of this aspect of preservation.

The more refined development of preservation-specific data is especially pronounced in the current study in regard to the breakdown of historic rehabilitation expenditures. Many studies to date use "canned programs" that have information on rehabilitation in general. But historic rehabilitation is not the same as general rehabilitation. To that end, the current study deconstructs in great detail the components of historic rehabilitation. This detailed breakdown permits a much more precise estimate of the economic impacts of historic rehabilitation, which in turn is one of the most important components of historic preservation.

Comprehensive Linked Analysis

As there are many facets to historic preservation, a study of its economic impacts should incorporate as many of these as possible. The current investigation attempts to do this by analyzing the respective economic contribution of (1) historic rehabilitation, (2) heritage tourism, and (3) Main Street investment. The Missouri investigation also considers the effects of this state's innovative state tax credits for rehabilitation investments.

The comprehensive inclusion of the many components of historic preservation in an economic assessment must carefully avoid double counting. For instance, if all of the activity of Main Street investments, historic rehabilitation, and heritage tourism were included, there would be duplicative counting because each one of these entities includes historic rehabilitation, which presumably is already tallied in the separate historic rehabilitation component.

The current study avoids this. For instance, in considering the economic contribution of Main Street, we *net* out from the Main Street investment capital spending and revenue derived from visitors, because these are considered in the earlier tallied historic rehabilitation and heritage tourism projections, respectively.

Use of a State-of-the-Art Input-Output Model

As other recent studies have done, the current investigation of the economic impacts of historic preservation considers direct effects of preservation-related activities as well as indirect and induced economic impacts. The total or multiplier effect, sometimes referred to as the ripple effect, has three segments:

1. A *direct effect* (the initial drop causing the ripple effects) is the change in purchases due to a change in economic activity.

2. An *indirect effect* is the change in the purchases of suppliers to the economic activity directly experiencing change.

3. An *induced effect* is the change in consumer spending that is generated by changes in labor income within the region as a result of the direct and indirect effects.

To illustrate briefly, the *direct effects* encompass the goods and services immediately involved in the economic activity analyzed, such as historic rehabilitation. For historic rehabilitation, this could include carpenters hired and steel purchased. *Indirect effects* encompass the value of goods and services needed to support the provision of the direct effects (e.g., materials purchases by the steel plant). *Induced effects* include the goods and services needed by households to provide the direct and indirect labor required to rehabilitate a historic structure (e.g., food purchases by the carpenters' or steelworkers' households). The estimation of indirect and induced effects typically is accomplished by what is referred to as an input-output model.

In this study, the projection of the total or multiplier effects of historic preservation is accomplished by application of an input-output model developed by the authors. This model offers significant advantages in detailing the total economic effects of an activity (such as historic rehabilitation), including multiplier effects (see appendix B).

The analysis in the subsequent chapters first presents the direct effects of the components of historic preservation—historic rehabilitation, heritage tourism, Main Street investment, and the Missouri Historic Preservation Tax Credit Program—and then applies the input-output model to derive total or multiplier effects.

CHAPTER TWO

Profile and Economic Impacts of Missouri Historic Rehabilitation

INTRODUCTION AND SUMMARY

This chapter first describes the profile and magnitude of historic rehabilitation in Missouri. The analysis is for the year 2000, which, when this study commenced, was the last year for which construction information was fully available. The chapter then considers how the direct Missouri historic rehabilitation investment translates into total economic impacts, including multiplier effects. The results of the analysis are summarized below:

- In 2000, an estimated total $2.1 billion was spent on rehabilitation in Missouri: $480 million on residential properties and $1.6 billion on nonresidential properties.

- Of the $2.1 billion spent on rehabilitation, an estimated $310 million, or about 14.9 percent of the total, was spent on historic private properties (properties listed on or eligible for historic designation on national, state, and/or local registers of historic sites). An additional $36 million of rehabilitation was spent on historic public buildings, resulting in an *estimated* $346 million in total historic rehabilitation.

EXHIBIT 2.1
Estimated Total Rehabilitation
and Historic Building Rehabilitation in Missouri (2000)

Property Type	Estimated Total Rehabilitation (in $ million)	Estimated Historic Rehabilitation (in $ million)	Historic Rehabilitation as % of Total Rehabilitation
Private			
Residential	$479.5	$79.6	16.6%
Nonresidential	$1,606.2	$230.3	14.3%
Total private	$2,085.7	$309.9	14.9%
Public	—	$35.6	—
Total	—	$345.5	—

- The direct effects of historic rehabilitation are translated into multiplier effects, which encompass such dimensions as *jobs* (employment by place of work), *income* (total wages, salaries, and proprietor's income), *gross domestic product* or GDP (total wealth accumulated, referred to at the state level as gross state product or GSP), *taxes* (federal, state, and local), and *in-state wealth* (GSP less "leakage" in the form of federal taxes).

- The total economic impacts from the $346 million spent in 2000 on statewide historic rehabilitation included the following: 13,830 new jobs; $459 million in income; $678 million in gross domestic product; and $144 million in taxes. Missouri garnered about half of these economic benefits and, as a result, captured $292 million in in-state wealth. The other effects were distributed outside Missouri.

EXHIBIT 2.2
Total Economic Impacts of the Annual Missouri Historic Building Rehabilitation ($346 Million)

	In Missouri	Outside Missouri	Total (U.S.)
Jobs (person years)	8,060	5,770	13,830
Income ($millions)	249	210	459
GDP/GSP[a] ($millions)	332	346	678
Total taxes ($millions)	70	74	144
Federal ($millions)	40	39	79
State/Local ($millions)	30	35	65
In-State wealth ($millions) (GSP minus federal taxes)	292	—	—

[a]GDP/GSP = Gross Domestic Product/Gross State Product.

HISTORIC REHABILITATION IN MISSOURI

Definition of Historic Rehabilitation

For the purposes of this study, historic rehabilitation includes all "rehabilitation" that is effected in "historic" properties. "Rehabilitation" is defined as encompassing all construction work that the Census classifies as "alterations." Not included are minor repairs or structures added to buildings (i.e., the Census categories "repairs" and "additions"). All rehabilitation is included—not just work of a historic nature (e.g., facade restoration)—as long as the rehabilitation is effected in a historic property. "Historic" is defined as a property that is designated as a national, state, or local landmark; or is located in a national, state or local historic register district; or because of age and other factors might be eligible for historic designation (see appendix C).

The definition of "rehabilitation" is straightforward (from the Census); however, the specification of "historic" as used in the present study bears further comment. Inclusion of landmarks listed by all levels of government—federal, state, and local—acknowledges that all of these listings are important. Including only entries on the National Register of Historic Places and omitting local landmarks would fail to incorporate the tremendous interest in preservation at the local level and the significance of local involvement, as evidenced by the numbers of landmark and historic district designations and the related rehabilitation of these resources.

Thus, our specification of historic includes only those properties already officially listed on registers, whether federal, state, or local, and properties that, because of age and other factors, *might* be eligible for historic listing. In the field of preservation, eligibility for designation is in fact a recognized status. At the federal level, a Section 106 review is triggered when federal action threatens properties both on, and eligible for, the National Register. There is a valid reason why eligibility for listing is recognized by historic

preservationists, principally that the time gap between eligibility status and official listing should not thwart the ultimate goal of protecting legitimate historic resources.

Scale of Historic Rehabilitation in Missouri

At first glance, the task of determining the share of Missouri rehabilitation work that is in historic stock seems easy: simply sum for all historic properties the total amount of rehabilitation and repair work that is performed. Unfortunately, there is no centralized data source for current building rehabilitation activity, nor is there one that lists historic properties in the state.

As recently as 1994, data on rehabilitation by community were collected by the Permits Division of the U.S. Bureau of Census. The series was ended, however. Indeed, the only construction data collected at the community level pertain to new residential construction permits. Further, the latest centralized data set with information on the age of structures in Missouri is the 1990 decennial national Census, and that too relates only to residential properties. Thus, it was within these constraints that estimates of the statewide value of rehabilitation of historic structures proceeded. The process used to estimate the extent of historic rehabilitation of buildings effected in Missouri in 2000 is fully described in appendix C and is outlined below.

1. First, past (pre-1994) relationships between permits for new residential building and both new nonresidential and rehabilitation construction for each of 469 Missouri communities were applied to 2000 data for new residential construction from the Census.

2. The community-level incidence ratios were applied to the respective estimates of rehabilitation activity using year 2000 permits data to obtain final estimates of private historic preservation activity effected in privately owned properties.

3. Using 1990 Census data on structure age, the ***incidence of historic rehabilitation*** was estimated for each Missouri community.

4. Annually, about $35.6 million is invested in the historic preservation of public buildings. This estimate is derived from files of CUPR studies on historic preservation. We merely apportioned an additional proportion of all historic rehabilitation activity to construction activity at county courthouses and state buildings.

Exhibit 2.3 below summarizes the results of the method more fully described in appendix C. These results are:

- In 2000, permits valued at about $4.3 billion were issued for new construction in Missouri. Nearly 59.9 percent ($2.6 million) of this was effected in housing units.

- In addition, about $2.1 billion was spent rehabilitating structures in Missouri. Of this, $480 million was spent on residential properties and $1.6 billion on nonresidential properties. Thus, the value of residential rehabilitation construction permits issued was about 18.6 percent of its new construction counterpart. For private nonresidential construction, the value of rehabilitation construction is about 93.1 percent of its new construction counterpart.

- Of the $2.1 billion, about $310 million (14.8 percent) was spent on private historic properties. Most (nearly 75 percent) of the activity was on nonresidential properties.

- The estimated average incidence of rehabilitation that was historic was nearly 17 percent for residential structures and nearly 14 percent for nonresidential structures.

EXHIBIT 2.3
Estimated Total and Historic Building Rehabilitation in Missouri (2000)

Property Type	Estimated Total New Construction (in $ million)	Estimated Total Rehabilitation (in $ million)	Estimated Historic Rehabilitation (in $ million)	Historic Rehabilitation as % of Total Rehabilitation
Private				
Residential	$2,581.8	$479.5	$79.6	16.6%
Nonresidential	$1,726.0	$1,606.2	$230.3	14.3%
Private subtotal	$4,307.8	$2,085.7	$309.9	14.9%
Public	—	—	$35.6	—
Total	—	—	$345.5	—

TRANSLATING THE ANNUAL MISSOURI HISTORIC REHABILITATION INVESTMENT INTO TOTAL ECONOMIC IMPACTS

This section discusses how the *total economic impact* of the $346 million of rehabilitation effected in historic properties annually is derived. First, the typical purchases for each type of property on which historic rehabilitation is taking place—single-family, multifamily, and nonresidential—are detailed by industry. The lists of typical labor, material, and service purchases for each property type are then standardized. These estimated economic "recipes" for historic renovation are then multiplied by the annual amount of such activity for each property type. The resulting vectors of historic rehabilitation volume are then applied to input-output models that calculate total economic impacts (direct, indirect, and induced) for the state of Missouri and the nation.

"Recipes" for Historic Rehabilitation

Direct effects, or direct requirements, the first category of total economic impact, are readily identified once a project has been bid and once its costs have been calculated and summed. In theory, the best way to estimate a project's direct requirements would be to use bid sheets that apply cost elements (i.e., labor and materials) to items specified by the

project's architects and engineers. Bid sheets would provide sufficient detail on project requirements to identify the industry that supplies the components, as well as the type of labor needed for the work. The quality of the estimates of a project's direct requirements, in turn, determines the quality of the estimates of other categories of economic impacts. Thus, estimates demand an unusual amount of thoroughness and care. In ideal circumstances, the thoroughness extends to identifying where the direct requirements come from, as well as a very detailed specification of the supplying industry.

In prior studies, the Center for Urban Policy Research (CUPR) obtained detailed cost information on renovations effected on a variety of historic properties by

- contacting developers/sponsors active in historic preservation,
- obtaining files on historic rehabilitation projects certified for federal preservation tax credits,
- obtaining files on projects that had received public funding.

In all instances, the information obtained approached the detail of a bid sheet. Based on these sources, CUPR received information on almost 60 historic properties requiring just shy of $100 million in recent rehabilitation. The detailed cost estimates for these projects were summed by property type—residential and nonresidential. Using information from the detailed cost estimates as well as the prior experience of the Regional Science Research Corporation in similar studies (University of Rhode Island 1993), the cost estimates by property type were converted into purchases of goods and services, including labor, by industry. This lengthy, sometimes subjective, conversion process enabled the specification required to get accurate results by industry from the preservation economic impact model. The result is an "economic recipe" of the direct requirements for historic rehabilitation by property type.

Estimating Total Economic Impacts

Total economic impacts encompass both *direct* and *multiplier* effects. The latter incorporate *indirect* and *induced* impacts. The character of the direct impacts of historic preservation is derived from the recipes noted above. The process for estimating a given project's indirect and induced economic impacts is more roundabout. By definition, a project's first round of indirect impact includes the purchases of any supplies and/or services that are required to produce the direct effects. Subsequent purchases of supplies and services generate other rounds of indirect impacts. The induced impacts are the purchases that arise, in turn, from the increase in aggregate labor income of households. Aggregate labor income is defined as the sum of wages, salaries, and proprietors' income earned by workers. Both the indirect and induced economic impacts demonstrate how the demand for direct requirements reverberates through an economy.

Exhibit 2.4 details the economic impacts of the rehabilitation of historic properties. The *direct impact* component consists of purchases made specifically for the construction project. Direct impacts on the local economy are composed only of purchases from local organizations.

The *indirect impact* component consists of spending on goods and services by industries that produce the items purchased by the contractors who are preserving the property. Among his many business relationships, for example, a contractor might purchase windows from "Jerry's Home Improvement Inc." (JHI), which makes custom windows. In order to produce windows, JHI must hire craftsmen as well as contract with firms that supply glass, adhesives, paints and coatings, glazing, and wood products. JHI also hopes to make a profit for its owners/shareholders. In order to meet JHI's needs, its suppliers must also hire workers and obtain materials and specialized services. The same process is repeated for their suppliers, and so on. Thus, an extensive network of relationships is established based upon round after round after round of business transactions that emanate from a single preservation project. It is this network of transactions that describes the set of indirect impacts. Of course, a firm's net indirect contribution to the preservation activity largely depends on (1) the total value of its transactions in the network; and (2) the proximity of its business relationship(s) to the preservation contractor within the project's business network. Similar to direct impacts, local indirect impacts are composed only of indirect business transactions that occur in the local economy.

Finally, *induced impacts* are a measure of household spending. They are a tally of the expenditures made by the households of the construction workers on a preservation project, as well as the households of employees of the supplying industries.

EXHIBIT 2.4
Examples of Direct and Multiplier Effects
(Indirect and Induced Impacts) of Historic Preservation

	MULTIPLIER EFFECTS	
DIRECT IMPACTS	**INDIRECT IMPACTS**	**INDUCED IMPACTS**
Purchases for: • Architectural design • Site preparation • Construction labor • Building materials • Machinery & tools • Finance & insurance • Inspection fees	Purchases of: • Lumber & wood products • Machine components • Stone, clay, glass, & gravel • Fabricated metals • Paper products • Retail & wholesale services • Trucking & warehousing	Household spending on: • Food, clothing, day care • Retail services, public transit, utilities, car(s), oil & gasoline, property & income taxes, medical services, and insurance

One means of estimating indirect and induced impacts would be to conduct a survey of the business transactions of the primary contractor. The business questionnaire for this survey would ask for the names and addresses of the contractor's suppliers; what and how much they supply; the names and addresses of the contractor's employees; and the annual payroll.

A related questionnaire would cover the household spending of the employees of the surveyed firms. It would request a characterization of each employee's household budget by detailed line items, including names and addresses of the firms or organizations from which each line item is purchased.

Both questionnaires subsequently could be used to measure indirect and induced impacts of the primary contractor's activity. The business questionnaire would be sent to the business addresses identified by the primary contractor; the household questionnaire, in turn, would be sent to the homes of the employees of those businesses that responded to the survey. This "snowball-type" sampling would continue until time or money was exhausted. In order to keep each organization's or household's contribution to the project in proper perspective, its total spending would be weighted by the size of its transaction with its customers who were included in the survey activity. The sum of the weighted transaction values obtained through the surveys would be the total economic impact of the project.

This survey-based approach to estimating indirect and induced impacts consumes a great deal of money and time, however. In addition, response rates by firms and households on surveys regarding financial matters are notoriously low. Hence, in the rare cases where survey work has been conducted to measure economic impacts, the results have tended to be not statistically representative of the targeted network of organizations and households. Consequently, relatively less expensive economic models based on Census data are typically used to measure economic impacts.

The economic model that has proven to estimate the indirect and induced economic effects of events most accurately is the input-output model. Its advantage stems from its level of industry detail and its depiction of interindustry relations. As shown in appendix B, a single calculation—known as the Leontief inverse—simulates the many rounds of business and household surveys. Input-output tables are constructed from nationwide Census surveys of businesses and households. The most difficult part of regional impact analysis is modifying a national input-output model so that it can be used to estimate impacts at a subnational level. Regionalization of the model typically is undertaken by the model producer and requires a large volume of data on the economy being modeled. This study employs regional input-output models to estimate the extent of the indirect and induced economic effects of a direct investment in historic preservation activities. The economic effects of historic rehabilitation are studied in this chapter; the effects of heritage tourism and the Main Street Program are studied in later chapters.

The Regional Science Research Corporation's Input-Output Model

The regional input-output model used by this study to derive the total economic impacts is a regionalized version of the Preservation Economic Impact Model produced by CUPR for the National Park Service. The PEI model (PEIM) produces very accurate estimates of the total regional impacts of an economic activity and employs detail for more than 500 industries in calculating the effects.

This model and its predecessors have proven to be the best of the non-survey-based regional input-output models at measuring a region's economic self-sufficiency. The models also have a wide array of measures that can be used to analyze impacts. In particular, PEIM produces one of the only regional economic models that enable an analysis of governmental revenue (i.e., tax) impacts and an analysis of gains in total regional wealth. (See appendix C for more details on the relative higher quality of the PEIM.)

The results of PEIM include many fields of data. The fields most relevant to this study are the total impacts with respect to the following:

- **Jobs:** *Employment, both part- and full-time, by place of work, estimated using the typical job characteristics of each detailed industry.* (Manufacturing jobs, for example, tend to be full-time; in retail trade and real estate, part-time jobs predominate.) All jobs generated at businesses in the region are included, even though the associated labor income of commuters may be spent outside of the region. In this study, all results are for activities occurring within the time frame of one year. Thus, the job figures should be read as job-years, i.e.; several individuals might fill one job-year on any given project.

- **Income:** *"Earned" or "labor" income—specifically wages, salaries, and proprietors' income*. Income in this case does not include nonwage compensation (i.e., benefits, pensions, or insurance), transfer payments, or dividends, interest, or rents.

- **Wealth**: *Value added—the equivalent at the subnational level of gross domestic product (GDP).* At the state level, this is called gross state product (GSP). Value added is widely accepted by economists as the best measure of economic well-being. It is estimated from state-level data by industry. For a firm, value added is the difference between the value of goods and services produced and the value of goods and nonlabor services purchased. For an industry, therefore, it is composed of labor income (net of taxes); taxes; nonwage labor compensation; profit (other than proprietors' income); capital consumption allowances; and net interest; dividends; and rents received.

- **Taxes**: *Tax revenues generated by the activity.* The tax revenues are detailed for the federal, state, and local levels of government. Totals are calculated by industry.

Federal tax revenues include corporate and personal income, social security, and excise taxes, estimated from the calculations of value added and income generated.

State tax revenues include personal and corporate income, state property, excise, sales, and other state taxes, estimated from the calculations of value added and income generated (e.g., purchases by visitors).

Local tax revenues include payments to substate governments mainly through property taxes on new worker households and businesses. Local tax revenues can also include revenues from local income, sales, and other taxes.

TOTAL ECONOMIC IMPACTS OF ANNUAL MISSOURI HISTORIC REHABILITATION

This chapter previously estimated that $346 million in historic rehabilitation is effected annually in Missouri. Of this, $80 million tends to be in residential historic properties (single- and multifamily), $230 million in private nonresidential historic properties, and $36 million in public/institutional properties. What is the total economic benefit of this activity? What proportion of these benefits accrues to Missouri?

To answer these questions, the study team applied the direct requirements of $346 million in historic rehabilitation construction activity to economic models of Missouri and the United States. This yielded total economic impacts for the country as a whole (national or U.S. effects) and for the state of Missouri (in-state effects). For both the nation and state, the significant economic indicators were jobs created, resident income generated, resident wealth generated (gross domestic or state product), and taxes generated by level of government.

Besides the above four measures, CUPR estimated an additional gauge of activity termed *in-state wealth.* This measure consists of in-state generation of value added (or gross state product), less the amount that "leaks" out of the state's economy in the form of taxes paid to the federal government. Since taxes paid to the state and local governments remain in state, they cannot be said to "leak" and, thus, are considered part of the accumulated in-state wealth.

PEIM expresses the resulting jobs, income, and wealth impacts in various levels of industry detail. The most convenient application breaks the industry-level results at the one-digit standard industrial code (SIC) or division level. This level has 11 industry divisions:

1. Agriculture
2. Agricultural, Fishing, and Forestry Services
3. Mining
4. Construction
5. Manufacturing

6. Transportation, Communications, and Public Utilities (TCPU)
7. Wholesale Trade
8. Retail Trade
9. Finance, Insurance, and Real Estate (FIRE)
10. Services
11. Government

PEIM provides results in two other industry breakdowns that detail subcategories under each of these eleven groups. These breakdowns use the two-digit SIC (86-industry) specification and the full industry specification of the input-output model (about 517 industries).

The model results, however, are only as good as the data that go into them. Thus, when the direct requirements are estimated, and the industry-level purchases are also estimated (as is the case in this study), care should be taken in interpreting model results, especially when they contain extreme categorical detail. Hence, the main body of this report focuses on the one-digit SIC level results, but data on the two-digit SIC results are made available as exhibits. The purpose of providing such detail is to enable a better idea of the quality of jobs that are likely to be created and of the types of industries that are most likely to be affected by historic rehabilitation activities.

The total economic impacts of the $346 million in historic rehabilitation spending are summarized below in exhibit 2.5 and detailed in exhibits 2.6 through 2.9:

EXHIBIT 2.5
Total Economic Impacts of the Annual Missouri Historic Building Rehabilitation ($346 Million)

	In Missouri	Outside Missouri	Total (U.S.)
Jobs (person years)	8,060	5,770	13,830
Income ($millions)	249	210	459
GDP/GSP[a] ($millions)	332	346	678
Total taxes ($millions)	70	74	144
Federal ($millions)	40	39	80
State/Local ($millions)	30	35	65
In-State wealth ($millions) (GSP minus federal taxes)	292	—	—

[a]GDP/GSP = Gross Domestic Product/Gross State Product.

Item 1 of section II in exhibit 2.6 shows how the $346 million translates into direct economic effects nationwide. It creates 5,424 jobs (technically "job-years"), which produce $175 million in labor income and $217 million in GDP. The difference between the initial investment ($346 million) and the direct GDP subsequently created by it

($217 million) implies that historic building rehabilitation requires significant amounts of imported materials.

The indirect and induced effects of historic preservation activity require 8,406 more jobs, and generate $283 million more in income and $460 million more in GDP in their support. As a consequence, the total economic impact—the sum of the direct and indirect and induced effects—of historic building rehabilitation is 13,830 jobs (5,424 + 8,406); $459 million in income ($175 million + $283 million); and $678 million in GDP ($217 million + $460 million). Hence, the multiplier effects are greater than the direct effects: the national multipliers are always substantially greater than 2.0.

According to exhibits 2.6 and 2.8, of the 13,830 jobs created annually, about 60 percent (8,060 jobs) are created within the state. Missouri retains nearly all of the jobs (4,744 of the 5,424) created directly by state-based historic rehabilitation activity. However, the indirect and induced impacts of Missouri historic rehabilitation activity tend to leak out of the state. Much of this leakage occurs through the demands of Missourians for products manufactured elsewhere.

Hence, most of the jobs created outside of the state are created indirectly in manufacturing industries to produce rehabilitation materials or to meet the demands of households. Missouri maintains only 34 percent (905 of 2,675) of all the high-paying manufacturing jobs that support the rehabilitation activity. Out-of-state manufacturers pay much higher wages than those in-state—$36,212 versus $27,128.

We can learn other interesting aspects of the impacts when we examine them by detailed industry (see exhibits 2.7 and 2.9). For example, the Missouri manufacturing industries that are stimulated most by the preservation activity (listed in order of their share in the increase in the manufacturing component of GSP) are as follows: stone, clay, and glass products (25.8 percent); fabricated metal products (22.0 percent); lumber and wood products (14.5 percent); petroleum and coal products (14.3 percent); and chemicals and allied products (5.2 percent).

Outside of the construction, manufacturing, wholesale trade and retail trade industries (mostly, eating and drinking establishments as well as general merchandising stores), the two detailed Missouri sectors that are most affected by preservation activity are engineering and management services (EMS) and business services.

The distribution of nationwide impacts across industries is similar to that for Missouri. As might be expected, however, the state experiences more of an impact in such industries as construction, retail trade, real estate, and EMS. Some consumer-oriented goods-producing industries loom larger in the national mix of affected sectors. In particular, preservation activities contribute relatively more to GDP in such industries as food and kindred products, printing and publishing, and transportation equipment (automobile) manufacturing than they do to GSP. The contribution to GDP is also relatively larger for air transportation services; electricity, gas, and sanitary services; non–real estate finance

industries; and business services. Of these, only business services is a producer-oriented industry. The influence on this industry is difficult to interpret, however, since it typically is largely composed of temporary help services, which are ultimately used by all other industries in the economy.

The average annual income of all jobs created by historic rehabilitation activity nationwide (in Missouri and other states) is estimated to be $33,155. Multiplying this figure by the total number of new jobs created (13,830) reveals that the $346 million investment in historic preservation is more than returned to the nation in the form of $112 million in increased income. In one sense, therefore, historic rehabilitation activity in Missouri can be viewed as an income reallocation and enhancement program for the nation. The average annual income for the Missouri jobs created by the investment is somewhat lower than for the jobs in the rest of the nation—$30,857 versus $33,155. The gap exists because higher-paying manufacturing jobs are largely performed outside of the state.

Labor income composes about 57 percent of GDP in all industries nationwide in any given year. For Missouri historic building rehabilitation, the proportion is somewhat higher—68 percent. Despite this, the wealth accruing to the state from the lower-paying Missouri jobs created by historic rehabilitation activity is lower than equivalent wealth accrual outside of the state. The magnitude of the difference between them is $41,244 versus $59,848 per job, or a wealth gap of $18,604. This gap compares to a difference in labor income of $5,509 per job ($30,857 versus $36,366). Thus, the wealth gap is not quite parallel to the wage gap, implying that rehab-related labor in Missouri gets a greater proportion of state-generated wealth than does labor in rehab-related activities occurring outside of the state. It also implies Missouri is relatively less well endowed in rehab-related industries with high-wealth generating capacity. Despite the relatively low return per worker, Missouri does well in retaining the wealth generated by historic preservation activity through the accumulation of in-state wealth (GSP minus federal taxes). The return to the nation is also boosted; nearly $2 is returned to the nation for each dollar invested—for a total return of $678 million on the original $346 million investment. What's more, this high return does not even consider the enhanced attractiveness for business or tourism purposes of the properties involved.

In summary, the economic impacts estimated through PEIM of the Missouri and the U.S. economies reveal that the annual historic rehabilitation activity in Missouri returns significantly more to the nation in terms of income and, hence, wealth than it costs to undertake. Nationwide, the $346 million Missouri investment creates about 13,830 new jobs, $459 million in additional income, and almost $678 million in total wealth. About 54 percent of each of these measures accumulates in Missouri itself.

EXHIBIT 2.6
National Economic and Tax Impacts of Annual Missouri Historic Building Rehabilitation ($ 346 Million)

	Economic Component		
	Employment (jobs)	**Income (000$)**	**Gross Domestic Product (000$)**
I. TOTAL EFFECTS (Direct and Indirect/Induced)*			
Private			
1. Agriculture	120	2,037	7,928
2. Agri. Serv., Forestry, & Fish	191	4,139	4,791
3. Mining	173	5,339	16,472
4. Construction	3,967	128,026	147,978
5. Manufacturing	2,675	88,647	144,511
6. Transport. & Public Utilities	711	27,072	56,747
7. Wholesale	538	25,924	37,970
8. Retail Trade	1,777	33,506	48,188
9. Finance, Ins., & Real Estate	1,063	59,108	99,863
10. Services	2,505	80,772	109,468
Private Subtotal	13,720	454,569	673,915
Public			
11. Government	110	3,970	3,841
Total Effects (Private and Public)	13,830	458,539	677,756
II. DISTRIBUTION OF EFFECTS/MULTIPLIER			
1. Direct Effects	5,424	175,314	217,466
2. Indirect and Induced Effects	8,406	283,225	460,289
3. Total Effects	13,830	458,539	677,756
4. Multipliers (3/1)	2.55	2.62	3.12
III. COMPOSITION OF GROSS STATE PRODUCT			
1. Wages--Net of Taxes			403,260
2. Taxes			
a. Local/State			64,653
b. Federal			
General			43,479
Insurance Trusts			35,543
Federal Subtotal			79,022
c. Total taxes (2a+2b)			143,675
3. Profits, dividends, rents, and other			130,820
4. Total Gross State Product (1+2+3)			677,756
EFFECTS PER MILLION DOLLARS OF INITIAL EXPENDITURE			
Employment (Jobs)			40.0
Income			1,325,258
Local/State Taxes			186,860
Gross State Product			1,958,831

Note: Detail may not sum to totals due to rounding.

*Terms:

Direct Effect (State)--the proportion of direct spending on goods and services produced.

Indirect Effects--the value of goods and services needed to support the provision of those direct economic effects.

Induced Effects--the value of goods and services needed by households that provide the direct and indirect labor.

EXHIBIT 2.7
National Economic Impacts of Annual
Missouri Historic Building Rehabilitation ($ 346 Million) in Industry Detail

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Agriculture	**120**	**2,037**	**7,928**
Dairy Farm Products	18	334	1,442
Eggs	0	4	11
Meat Animals	25	454	2,010
Misc. Livestock	2	43	78
Wool	0	4	15
Cotton	9	153	460
Tobacco	0	5	30
Grains & Misc. Crops	4	51	222
Feed Crops	14	245	1,057
Fruits & Nuts	26	337	1,271
Vegetables	5	98	220
Greenhouse & Nursery Products	8	138	596
Sugar Beets & Cane	1	27	84
Flaxseed, Peanuts, Soybean, Sunflower	8	144	431
Agri. Serv., Forestry, & Fish	**191**	**4,139**	**4,791**
Agri. Services (07)	166	3,665	3,369
Forestry (08)	23	452	1,355
Fishing, Hunting, & Trapping (09)	1	22	67
Mining	**173**	**5,339**	**16,472**
Coal Mining (12)	17	628	1,546
Oil & Gas Extraction (13)	56	1,289	7,830
Nonmetal Min.-Ex. Fuels (14)	93	3,190	6,627
Metal Mining (10)	7	232	470
Construction	**3,967**	**128,026**	**147,978**
General Bldg. Contractors (15)	2,805	88,643	101,918
Heavy Const. Contractors (16)	648	22,593	25,634
Special Trade Contractors (17)	514	16,790	20,426
Manufacturing	**2,675**	**88,647**	**144,511**
Chemicals & Allied Prod. (28)	207	10,087	20,805
Petroleum & Coal Prod. (29)	167	4,695	12,056
Rubber & Misc. Plastics (30)	112	3,594	4,857
Leather & Leather Prod. (31)	16	390	650
Stone, Clay, & Glass (32)	341	10,738	15,130
Primary Metal Prod. (33)	120	5,640	8,165
Fabricated Metal Prod. (34)	444	13,014	20,537
Machinery, Except Elec. (35)	126	4,834	6,142

EXHIBIT 2.7(continued)
National Economic Impacts of Annual
Missouri Historic Building Rehabilitation ($ 346 Million) in Industry Detail

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Electric & Elec. Equip. (36)	155	5,919	10,560
Transportation Equipment (37)	71	3,572	5,573
Instruments & Rel. Prod. (38)	34	1,396	1,568
Misc. Manufacturing Ind's. (39)	47	1,411	2,415
Food & Kindred Prod. (20)	129	4,284	7,845
Tobacco Manufactures (21)	3	146	406
Textile Mill Prod. (22)	137	3,301	4,410
Apparel & Other Prod. (23)	76	1,741	2,246
Limber & Wood Prod. (24)	303	7,101	11,256
Furniture & Fixtures (25)	28	729	1,014
Paper & Allied Prod. (26)	61	2,612	4,131
Printing & Publishing (27)	98	3,442	4,745
Transport. & Public Utilities	**711**	**27,072**	**56,747**
Railroad Transportation (40)	72	1,274	3,502
Local Pass. Transit (41)	57	892	1,335
Trucking & Warehousing (42)	254	9,936	11,190
Water Transportation (44)	22	851	1,347
Transportation by Air (45)	50	1,783	2,961
Pipe Lines-Ex. Nat. Gas (46)	2	139	593
Transportation Services (47)	28	949	1,503
Communication (48)	113	5,639	13,972
Elec., Gas, & Sanitary Serv. (49)	113	5,609	20,346
Wholesale	**538**	**25,924**	**37,970**
Wholesale-Durable Goods (50)	288	16,662	21,638
Wholesale-Nondurable Goods (51)	250	9,261	16,332
Retail Trade	**1,777**	**33,506**	**48,188**
Bldg. Mat.-Garden Supply (52)	72	1,855	2,782
General Merch. Stores (53)	183	5,440	4,534
Food Stores (54)	203	4,280	5,642
Auto. Dealers-Serv. Stat. (55)	188	4,878	8,007
Apparel & Access. Stores (56)	140	2,277	3,191
Furniture & Home Furnish. (57)	46	1,587	1,578
Eating & Drinking Places (58)	703	7,079	14,155
Miscellaneous Retail (59)	242	6,111	8,299
Finance, Ins., & Real Estate	**1,063**	**59,108**	**99,863**
Banking (60)	139	4,156	13,049
Nondep. Credit Institut. (61)	269	17,515	18,555

EXHIBIT 2.7(continued)
National Economic Impacts of Annual
Missouri Historic Building Rehabilitation ($ 346 Million) in Industry Detail

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Security, Comm. Brokers (62)	106	4,745	8,575
Insurance Carriers (63)	187	9,232	13,274
Ins. Agents, Brokers (64)	171	6,378	8,912
Real Estate (65)	46	3,197	23,113
Holding and Invest. Off. (67)	145	13,887	14,385
Services	**2,505**	**80,772**	**109,468**
Hotels & Other Lodging (70)	137	2,869	4,293
Personal Services (72)	185	4,749	5,419
Business Services (73)	654	16,688	25,477
Auto Repair, Serv., Garages (75)	89	2,049	4,746
Misc. Repair Services (76)	49	1,789	2,595
Motion Pictures (78)	84	2,381	2,978
Amusement & Recreation (79)	97	2,391	3,066
Health Services (80)	152	4,199	5,178
Legal Services (81)	154	7,871	12,075
Educational Services (82)	98	2,219	2,365
Social Services (83)	84	1,180	1,227
Museums, Gardens & Mem. Orgs. (84, 86)	180	4,458	4,592
Engineer. & Manage. Serv. (87)	455	23,673	29,794
Private Households (88)	0	0	0
Miscellaneous Services (89)	88	4,256	5,661
Government	**110**	**3,970**	**3,841**
Total	**13,830**	**458,539**	**677,756**

Note: Detail may not sum to totals due to rounding.

EXHIBIT 2.8
In-state Economic and Tax Impacts of Annual Missouri Historic Building Rehabilitation ($ 346 Million)

	Employment (jobs)	Income ($000)	Gross Domestic Product ($000)
I. TOTAL EFFECTS (Direct and Indirect/Induced)*			
Private			
1. Agriculture	16	127	544
2. Agri. Serv., Forestry, & Fish	101	2,028	1,882
3. Mining	69	2,161	4,492
4. Construction	3,590	117,712	135,593
5. Manufacturing	905	24,551	40,459
6. Transport. & Public Utilities	249	8,589	17,398
7. Wholesale	202	8,523	12,493
8. Retail Trade	1,062	17,466	24,723
9. Finance, Ins., & Real Estate	532	25,221	38,895
10. Services	1,291	40,946	54,643
Private Subtotal	8015	247,324	331,122
Public			
11. Government	45	1,385	1,310
Total Effects (Private and Public)	8,060	248,708	332,432
II. DISTRIBUTION OF EFFECTS/MULTIPLIER			
1. Direct Effects	4,744	155,229	191,824
2. Indirect and Induced Effects	3,317	93,479	140,608
3. Total Effects	8,060	248,708	332,432
4. Multipliers (3/1)	1.70	1.60	1.73
III. COMPOSITION OF GROSS STATE PRODUCT			
1. Wages--Net of Taxes			210,077
2. Taxes			
a. Local/State			29,653
b. Federal			
General			21,482
Insurance Trusts			18,732
Federal Subtotal			40,214
c. Total taxes (2a+2b)			69,868
3. Profits, dividends, rents, and other			52,488
4. Total Gross State Product (1+2+3)			332,432
EFFECTS PER MILLION DOLLARS OF INITIAL EXPENDITURE			
Employment (Jobs)			23.3
Income			718,810
Local/State Taxes			85,703
Gross State Product			960,787

Note: Detail may not sum to totals due to rounding.

*Terms:

Direct Effect (State)—the proportion of direct spending on goods and services produced.

Indirect Effects—the value of goods and services needed to support the provision of those direct economic effects.

Induced Effects—the value of goods and services needed by households that provide the direct and indirect labor.

EXHIBIT 2.9
In-state Economic Impacts of Annual
Missouri Historic Building Rehabilitation ($ 346 Million)

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Agriculture	**16**	**127**	**544**
Dairy Farm Products	0	0	0
Eggs	0	0	0
Meat Animals	7	52	242
Misc. Livestock	0	0	1
Wool	0	0	0
Cotton	0	0	1
Tobacco	0	0	0
Grains & Misc. Crops	2	6	26
Feed Crops	1	18	76
Fruits & Nuts	4	8	29
Vegetables	0	2	2
Greenhouse & Nursery Products	2	33	144
Sugar Beets & Cane	0	0	0
Flaxseed, Peanuts, Soybean, Sunflower	0	8	24
Agri. Serv., Forestry, & Fish	**101**	**2,028**	**1,882**
Agri. Services (07)	100	2,014	1,839
Forestry (08)	1	14	43
Fishing, Hunting, & Trapping (09)	0	0	0
Mining	**69**	**2,161**	**4,492**
Coal Mining (12)	0	0	0
Oil & Gas Extraction (13)	0	4	25
Nonmetal Min.-Ex. Fuels (14)	68	2,156	4,464
Metal Mining (10)	0	1	3
Construction	**3,590**	**117,712**	**135,593**
General Bldg. Contractors (15)	2,668	84,965	97,677
Heavy Const. Contractors (16)	598	21,371	24,244
Special Trade Contractors (17)	324	11,376	13,673
Manufacturing	**905**	**24,551**	**40,459**
Chemicals & Allied Prod. (28)	47	1,874	3,839
Petroleum & Coal Prod. (29)	129	2,914	7,116
Rubber & Misc. Plastics (30)	11	294	398
Leather & Leather Prod. (31)	2	31	51
Stone, Clay, & Glass (32)	233	6,935	9,604
Primary Metal Prod. (33)	12	451	653
Fabricated Metal Prod. (34)	199	5,124	8,087
Machinery, Except Elec. (35)	24	716	912

EXHIBIT 2.9(continued)
In-state Economic Impacts of Annual
Missouri Historic Building Rehabilitation ($ 346 Million)

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Textile Mill Prod. (22)	1	12	17
Apparel & Other Prod. (23)	16	254	328
Limber & Wood Prod. (24)	131	2,766	4,384
Furniture & Fixtures (25)	6	151	210
Paper & Allied Prod. (26)	6	188	295
Printing & Publishing (27)	23	693	960
Transport. & Public Utilities	**249**	**8,589**	**17,398**
Railroad Transportation (40)	12	398	1,095
Local Pass. Transit (41)	30	364	545
Trucking & Warehousing (42)	102	3,592	4,077
Water Transportation (44)	5	143	226
Transportation by Air (45)	13	419	696
Pipe Lines-Ex. Nat. Gas (46)	0	11	47
Transportation Services (47)	7	222	348
Communication (48)	43	1,839	4,592
Elec., Gas, & Sanitary Serv. (49)	35	1,600	5,771
Wholesale	**202**	**8,523**	**12,493**
Wholesale-Durable Goods (50)	108	5,457	7,087
Wholesale-Nondurable Goods (51)	94	3,065	5,406
Retail Trade	**1,062**	**17,466**	**24,723**
Bldg. Mat.-Garden Supply (52)	50	1,089	1,633
General Merch. Stores (53)	124	3,004	2,503
Food Stores (54)	135	2,368	3,121
Auto. Dealers-Serv. Stat. (55)	131	2,610	4,285
Apparel & Access. Stores (56)	92	1,166	1,634
Furniture & Home Furnish. (57)	28	836	832
Eating & Drinking Places (58)	352	3,155	6,310
Miscellaneous Retail (59)	150	3,238	4,405
Finance, Ins., & Real Estate	**532**	**25,221**	**38,895**
Banking (60)	58	1,722	5,408
Nondep. Credit Institut. (61)	151	8,472	8,975

EXHIBIT 2.9(continued)
In-state Economic Impacts of Annual
Missouri Historic Building Rehabilitation ($ 346 Million)

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Security, Comm. Brokers (62)	43	1,708	3,086
Insurance Carriers (63)	86	3,788	5,446
Ins. Agents, Brokers (64)	81	2,696	3,768
Real Estate (65)	15	828	5,991
Holding and Invest. Off. (67)	98	6,006	6,221
Services	**1,291**	**40,946**	**54,643**
Hotels & Other Lodging (70)	23	378	568
Personal Services (72)	105	2,272	2,584
Business Services (73)	300	6,853	10,570
Auto Repair, Serv., Garages (75)	36	694	1,577
Misc. Repair Services (76)	16	440	631
Motion Pictures (78)	40	488	610
Amusement & Recreation (79)	34	707	921
Health Services (80)	79	2,006	2,474
Legal Services (81)	89	4,259	6,533
Educational Services (82)	47	922	987
Social Services (83)	44	546	568
Museums, Gardens & Mem. Orgs. (84, 86)	88	1,987	2,046
Engineer. & Manage. Serv. (87)	342	17,644	22,245
Private Households (88)	0	0	0
Miscellaneous Services (89)	49	1,750	2,328
Government	**45**	**1,385**	**1,310**
Total	**8,060**	**248,708**	**332,432**

Note: Detail may not sum to totals due to rounding.

CHAPTER THREE

Profile of, and Direct Economic Impacts from, Missouri Heritage Tourism

INTRODUCTION

Giant and growing, the U.S. travel and tourism industry has captured the attention of state and local governments eager to bolster local economies and enhance community amenities.

The $400 billion travel industry—one of America's fastest-growing business segments—accounts for approximately 6 percent of the nation's gross domestic product. Demographic, socioeconomic, and lifestyle factors are affecting the industry's volume and its predominant component—the pleasure trip market. Heritage tourism, one of the top reasons for pleasure travel, has become increasingly important to travelers and the communities they visit and offers significant benefits to the community. Heritage tourism can offset the costs of maintaining historic sites, help stimulate preservation efforts, and perpetuate the sense of place that lends communities their unique character and identity. At the same time, heritage tourism can realize important economic gains with respect to jobs, income, and tax revenues.

This chapter analyzes heritage tourism in the nation and in Missouri. First, an overview of the U.S. travel market sets out a perspective on the market's size, features, trends, and impacts. Next, heritage tourism's growth factors, benefits, and impacts are briefly surveyed at the national level. Finally, the Missouri travel market and data compiled on the features and economic impacts of Missouri heritage tourism are reviewed in detail.

SUMMARY OF FINDINGS

National Travel and Heritage Tourism

- There are numerous trends in the travel market fostering heritage tourism, including an increase in travel for pleasure, as opposed to business, and a growing tendency toward shorter duration and shorter distance trips. Baby boomers—large in number and with growing discretionary income—also have a proclivity toward heritage tourism.

- While the precise scale of national heritage tourism is unavailable, it is by all accounts a significant component of pleasure travel. Forty percent of families traveling on vacation stop at historic sites (Schiller 1996), and museums and cultural events rank among Americans' favorite tourist attractions (McDowell 1997).

- Numerous reports show heritage tourism's significant contribution to the economy. In Virginia, for instance, historic preservation visitors were found to stay longer, visit twice as many places, and spend on average more than two and one-half times more money in that state than other (non-heritage) visitors.

Missouri Travel and Heritage Tourism

- Travel and tourism are also significant to Missouri's economic well-being. As an industry, Missouri tourism is one of the state's top three revenue producers.

- Enhanced heritage tourism in Missouri would expand the overall travel market in the state. Heritage tourism would increase overnight and touring vacations and would coax more visitors to Missouri—thus injecting the state with "imported" income. Moreover, Missouri is rich in historic and other interesting sites, which are core motivations for heritage travel.

- Heritage travel is already an important component of the Missouri travel market as is depicted below:

EXHIBIT 3.1
Annual Average Person-Trip Distribution for Missouri (1995-1999)

Traveler Trip	All Missouri Person-Trips (in millions)	Heritage Person-Trips[a] (in millions)	Heritage as Percent of All Missouri Travel
Day trip	11.366	.335	2.9%
Overnight	20.699	2.905	14.0%
All trips (day and overnight)	32.065	3.240	10.2%

[a]Defined as a business or leisure traveler indicating "visit historic site" or other related trip purpose.

- The profile of the heritage traveler in Missouri leans heavily toward middle-aged, married adults who are relatively well-educated and have middle or higher incomes. Compared to all Missouri trips, the heritage trip, tends to be a group trip (often part of a family trip), with multiple activities.

- Compared with all Missouri travelers, heritage travelers, on average, spend considerably more. Furthermore, a much higher share of Missouri heritage travelers come from out of state (81 percent for the heritage group versus 68 percent for all Missouri travelers). These traits combined accentuate the economic contribution of the Missouri heritage traveler.

EXHIBIT 3.2
Annual Average Spending per Person-Trip for Missouri (1995-1999)

Trip Type	All Missouri Travelers	Heritage Traveler	Heritage as % of All Missouri Travelers
Daytrips	$102	$150	147%
Overnight Trips	$242	$265	109%

- Travel expenditures of Missouri heritage travelers, counting only the spending attributable to the heritage portion of their travels, amount to some $660 million annually. In the case of a lawyer traveling to Jefferson City on business, for example, and stopping at a historic house museum in Missouri's capital, only a fraction of this trip's expenditure would be counted by this study as a heritage trip expenditure.

EXHIBIT 3.3
Annual Average Heritage Trip Spending for Missouri (1995-1999)

Trip Type	Heritage Trips
Day trips	$39.2 million
Overnight Trips	$620.8 million
All Trips (Day and Overnight)	$660.0 million

- The total impacts from the $660 million in annual heritage tourism spending in Missouri are shown below.

Total Economic Impacts of the Annual Missouri Heritage Tourism Spending ($660 Million Spent)

	In Missouri	Outside Missouri	Total (U.S.)
Jobs (person years)	20,077	7,942	28,019
Income ($millions)	325	281	606
GDP/GSP ($millions)	574	494	1,068
Total taxes ($millions)	148	106	254
Federal ($millions)	68	54	122
State/Local ($millions)	79	53	132
In-state wealth ($millions) (GSP minus federal taxes)	506	—	—

[a]GDP/GSP = Gross Domestic Product/Gross State Product.

NATIONAL TRAVEL AND TOURISM OVERVIEW

- In 1999, Americans took 1 billion domestic person-trips of 50 miles or more (U.S. Travel Data Center 1999) away from home. On average, a third (32 percent) of U.S. households take at least one trip each month.

- In 1999 travel expenditures in the U.S. totaled $526.6 billion ($451.6 billion from U.S. residents). On average, travel parties spend $438 per trip, not including transportation to their destination.

- Domestic travel in the United States in 1999 was predominantly composed of pleasure trips (66 percent) and business trips (21 percent). The three main components of pleasure travel are visiting friends and family (53 percent), outdoor recreation (16 percent), and entertainment (31 percent).

- Demographically, 1999 traveling households were apt to be married (64 percent); more than a third (36 percent) had children at home and the average age of traveling household heads was 48. More than half (57 percent) had completed college and four in ten work in professional or managerial positions (43 percent). The greatest change in the demographic profile of travelers

over the past five years has been the rise in household income levels. Travelers' average annual household increased from $50,700 in 1994 to $61,500 in 1999.

- Almost half (46 percent) of all U.S. resident trips involved a hotel/motel or bed & breakfast stay in 1999. The average pleasure trip lasted 3.4 nights, but among only overnight trips, average duration is 4.2 nights.

- Travel expenditures create secondary impacts that magnify travel's contribution to the economy, as shown in exhibit 3.4. This exhibit indicates the direct, the indirect and induced, and finally the total economic impacts of travel in the United States in 1990.

- The most popular type of trip activity is shopping, included on a third (33 percent) of all person trips. Shopping is followed by outdoor activities (17 percent), historical places/museums (14 percent), beaches (10 percent), national/state parks (10 percent), and cultural events/festivals (10 percent). As usual summer is the most popular travel season for pleasure travel (33 percent of all person-trips) and winter is the least popular travel season (20 percent).

- There are a number of overall forces affecting travel and tourism in the United States that bear on heritage tourism. These include:

    1. A stimulus for travel growth is expected to come from the increasing numbers of pleasure trips. More and more, consumers seem to prefer long weekend getaways instead of lengthier vacations to more distant spots. Perhaps this reflects the rise in numbers of two-income households with more money but less free time (Standard and Poors 1996). Overall travel data also suggest an increasing trend toward shorter-duration trips—more daytrips and one-night visits—and shorter-distance trips. Heritage tourism compares well with these trends.

    2. Baby boomers are in or approaching their peak earning years and have discretionary income to spend. They represent great potential for the pleasure travel market. "The one thing baby-boomers have left to collect is experiences, and that's what travel and the arts offer." (Cook 1996)

In short, due to demographic reasons, such as the coming of age of baby boomers, and the evolving nature of travel in the United States (e.g., increasing numbers of short pleasure trips), heritage tourism is becoming a more potent force in the travel market as a whole (Gaede 1994).

EXHIBIT 3.4
Measures of Impact of Travelers on the U.S. Economy in 1990

Impact Measure	Direct Impact	Indirect & Induced Impact	Total Impact	Multiplier
Expenditures (Billions)	$290.4	$407.3	$697.7	2.40
Earnings (Billions)	$79.1	$117.6	$196.7	2.49
Employment (Millions)	5.2	5.3	10.5	1.92

Source: Impact of Travel on State Economies, 1990, U.S. Travel Data Center, October 1992

HERITAGE TOURISM IN THE UNITED STATES

Historic sites play a crucial role in fostering pleasure travel. As travel expert Arthur Frommer explained, "[p]eople travel in massive numbers to commune with the past. We all gain solace, pleasure and inspiration from contact with our roots... [Y]ou cannot deny that seeing the cultural achievements of the past, as enshrined in period buildings, is one of the major motivators for travel." (Frommer 1993)

Precise data on heritage tourism's share of the overall travel market is not available. But various surveys report that historic site visits are increasingly included on family travel itineraries. Noting a 1993 *Better Homes and Garden Survey*, economist Tim Schiller (1996) wrote:

> Historic sites are growing in popularity as destinations for pleasure trips: 40 percent of families traveling on vacation stop at historic sites. Several factors account for this increased interest. First, such trips tend to be less expensive than other types of vacations or pleasure travel. Second, family travel has increased, and often, historic sites are something of interest to all family members. Third, vacationers, especially family groups, are more concerned about adding educational opportunities to their vacation plans.

Heritage tourism's burgeoning growth has also garnered business and government support.

1. American Express Travel Related Services underwrote the 1993 publication of *Getting Started: How to Succeed in Heritage Tourism*, by the National Trust for Historic Preservation. The booklet is designed to help communities combine the preservation of historic, cultural, and natural resources with tourism and help sustain local economies and community character.

2. Black heritage tourism is increasing exponentially, and African Americans have formed tour companies that focus on black cultural heritage throughout the U.S. (American Vision 1994).

3. The United States Travel and Tourism Administration and the Minority Business Development Agency began a joint economic initiative in 1990 to broaden awareness of minority historical and cultural tourist destinations and to bolster minority-owned businesses, particularly in travel and tourism. The multifaceted program is considered an initiative "to assist interested communities in preserving and celebrating their cultural identities through tourism." (Doggett 1993)

The $16 billion spent on the restoration of American historic sites since 1976 has produced a critical mass of saved resources in many communities (Travel Holiday 1996). As the number of preserved historic sites and neighborhoods mounts, new tourism "product" becomes available for both domestic and international visitors and the tourism-preservation cycle continues.

> [T]he tourism industry needs more attractive, educational and authentic destinations to meet the needs of growing numbers of domestic and international travelers; the preservation community needs the political support and economic benefit that travelers provide to the sites and the communities they visit. That support and the resulting economic benefit are catalysts for continued protection, maintenance and promotion of these heritage areas. (*Touring Historic Places.*)

Recognition of heritage tourism's economic contribution (or potential) can be found throughout the country.

- More than 85 regional heritage areas are in varying phases of development across the U.S. These efforts reflect broad-based collaboration to protect a regional landscape, preserve historic resources, enhance recreation, or stimulate economic development and regional strength through tourism.

- An analysis of historic preservation's impact on Maryland's tourism industry found that visiting historic sites is one of the most popular activities among travelers. But, historic properties, responsible for generating a very large share of the state's tourism income, needed to be more widely promoted.

- In Virginia, the impact of travel to historic sites was found to be crucial to the state's economy.

  Historic preservation visitors stay longer, visit twice as many places, and spend on average, over two-and-one-half times more money in Virginia than do other visitors. The economic impact of Colonial Williamsburg alone on Virginia's economy is over half a billion dollars a year. (Virginia 1996)

- A report on the economic impact of Wisconsin's heritage tourism program showed that visitors spent over $215 million on admission fees alone to cultural/historic activities in 1995.

MISSOURI'S TRAVEL AND TOURISM MARKET OVERVIEW

Missouri's travel and tourism market is sizable and important economically. As an industry, not only is tourism one of the state's top three revenue-producing sectors but it is also one of the fastest growing elements of the state's economy. The 160 million person-trips made to Missouri or within the state during the period 1995-1999 generated about $25 billion in traveler expenditures. According to one report, an estimated $8 billion was spent by Missouri travelers during the year 1999 and 4.1 percent of the state's total economy is driven by visitor spending.

Much of the travel data for Missouri is derived from the TravelScope survey. All summary measures and statistics are based on the panel data according to this survey. TravelScope surveys 20,000 households per month of which the response rate is approximately 70 percent and about 2,000 responses contain information about trips to Missouri. Since statistical inferences are more reliable when based on meaningful sample sizes, the data is pooled over a five-year period (January 1995 through December 1999). The discussion that follows relies on the Travel Scope survey data, unless otherwise noted.

Travel in Missouri is overwhelmingly overnight in nature. As shown in exhibit 3.5, nearly two thirds of trips are overnight trips. On a per-trip basis overnight visitors on average outspent day visitors ($242 per overnight trip versus $102 per daytrip) during the period 1995-1999.

EXHIBIT 3.5
Total Missouri Total Person-Trips (1995–1999)

	1995–1999		
	Total Missouri Person-Trips (in millions)	%	Average Spending Per Person-Trip
Daytrips	56.8	35.4%	$102
Overnights	103.5	64.6%	$242
Total Trips	160.3	100.0%	

In summary, heritage travel is very important to Missouri on numerous interrelated counts:

1. It has the potential to increase overall travel and tourism in the state with attendant economic benefits.

2. It has the potential of broadening the state's travel objectives.

3. Heritage tourism can increase overnight touring travel in the state—a sector that is currently underdeveloped compared to national norms. Overnight travelers spend more than day-trippers and thus generate greater economic benefits.

4. Missouri is rich in historic and other sites (e.g., sites of ethnic and/or minority interest), which are at the core of heritage travel.

5. Increased heritage travel to Missouri can enhance the state's image as an attractive destination.

As elsewhere, heritage travel in Missouri can benefit from changes occurring generally in the counrty and from specific trends affecting travel. These include: an aging population; a population with enhanced interest in education, tradition, and roots; a large baby-boom population with discretionary income; and an increase in family travel, domestic travel, and shorter-duration and shorter-distance trips.

To obtain a better sense of heritage tourism in Missouri, it behooves us to examine in greater detail the profile and scope of the state's current heritage travelers.

MISSOURI HERITAGE TOURISM

The Center for Urban Policy Research (CUPR) at Rutgers University analyzed TravelScope travel survey information for the period 1995-1999. While the survey data were not focused on heritage tourism per se, the survey results can be assembled for such an analysis, as detailed in Addenda A. Using the base survey data, CUPR identified the following groups and subgroups of Missouri tourists.

Overnight Visitors:
1. *All Missouri Overnight travelers:* all overnight visitors.

2. *Heritage Overnighters:* Overnight visitors who reported to have visited a historic place or museum as a trip activity.

3. *Non-heritage Overnighters*: Overnight visitors who are not heritage tourists.
   For day-trippers, because of the more limited information on this group, similar but not identical groups are identified.

Daytrip Tourists:

1. *All Missouri Daytrip Travelers*: All daytrip visitors.

2. *Heritage Day-trippers*: Day-trippers having some identifiable historic trip purpose by reporting that they visited a historic place or museum as a trip activity. The additional condition for this set of travelers is that their primary trip purpose was either "visit friends/relatives", "business/pleasure" or personal."

3. *Non-heritage Day-trippers*: Day-trippers who are not identified as daytrip heritage tourists.

Thus, for both the overnight visitors and day-trippers, an overall traveler group is identified, as well as non-heritage and heritage tourists. Information about each respective category and subcategory follows.

Scale of Heritage Travel

As summarized in exhibits 3.6 through 3.8 during the years spanning January 1995 to December 1999 an estimated volume of 160,324,434 person-trips were made to the state of Missouri. (All trips discussed in this section are measured in person-trips.) Of this volume, 56,829,493 were daytrips and 103,494,492 were overnight trips of all types. Annually that averages to 11,365,899 daytrips and 20,698,989 overnight visits in terms of person-trips.

From 1995 to 1999, there was an average of 334,572 heritage daytrips per year—almost 3 percent of all daytrips (exhibit 3.6). During the same period, there was an average 2,905,014 overnight heritage trips per year. Heritage trips comprised 14 percent of all Missouri overnight trips, (exhibit 3.7).

In short, heritage tourism in Missouri is a noticeable, but still very modest part of the state's travel market. According to CUPR, heritage travel's 3.2 million average annual trips (day and overnight trips) to Missouri accounted for approximately 10 percent of all state travel in the 1995–1999 period (exhibit 3.8).

EXHIBIT 3.6
Missouri Daytrip Distribution

Period	Total MO Day Trips		Heritage		Non-Heritage	
	Trips	% of MO Total	Trips	% of MO Total	Trips	% of MO Total
Annual Average 1995–1999	11,365,899	100%	334,572	2.9%	11,031,327	97.1%
Total 1995–1999	56,829,493	100%	1,672,858	2.9%	55,156,634	97.1%

EXHIBIT 3.7
Missouri Overnight Trip Distribution

Period	Total MO Day Trips		Heritage		Non-Heritage	
	Trips	% of MO Total	Trips	% of MO Total	Trips	% of MO Total
Annual Average						
1995–1999	20,698,988	100%	2,905,014	14%	17,793,974	86%
Total 1995–1999	103,494,942	100%	14,525,071	14%	88,969,821	86%

EXHIBIT 3.8
Missouri Total Trip Distribution
Daytrip and Overnight

Period	Total MO Day Trips		Heritage		Non-Heritage	
	Trips	% of MO Total	Trips	% of MO Total	Trips	% of MO Total
Annual Average						
1995–1999	32,064,887	100%	3,239,586	10%	28,825,301	90%
Total 1995–1999	160,324,434	100%	16,197,929	10%	144,126,505	90%

Source: Rutgers University Center for Urban Policy Research, 2000
Notes: All trips are measured in person-trips.
Heritage = travelers that visited a historical place or museum.

Who Travels to Missouri's Historic Sites?

Overnight heritage visitors are mostly comprised of adults with an average age of about 48 (exhibit A-1 in Addenda A). This characteristic is not distinct from that of non-heritage overnighters whose average age is 47. While the overall age distribution between the two groups is very similar, there is a slightly higher proportion of heritage overnighters who are 65 years or older (18 percent vs. 15 percent).

Three out of four (76 percent) overnight heritage travelers have at least some college education, and the median annual income for the household head is $41,700 (exhibit A-1). Average non-heritage overnighters are similarly educated but have somewhat higher annual incomes (median income for head of household = $45,475). The percentage of heritage overnighters who hold professional occupations is 40 percent while that for non-heritage overnighters is 43 percent.

As detailed in exhibit A-3, daytrippers tend to be somewhat older than overnight visitors and heritage daytrippers are slightly older than non-heritage daytrippers. Approximately 30 percent of all heritage daytrip visitors are at least 65 years old and their average age is 53. The average age for a non-heritage daytripper is 49 with twenty percent of this group being 65 years or older.

Heritage daytrippers have a higher median income ($38,275) than non-heritage daytrippers ($36,250). Approximately seventy percent of daytrip heritage tourists have at least some college education while a slightly greater proportion (almost 3 out of 4) of non-heritage daytrippers do so. A smaller proportion of heritage daytrippers compared to non-heritage daytrippers have professional occupations (25 percent vs. 36 percent).

What Are Missouri Heritage Trips Like?

Out of the 160 million plus visitors to Missouri during 1995-99, about seventy percent originated from outside the state (exhibit A-6). Of these out-of-state visitors, approximately 65 percent were overnighter travelers. Most of the out-of-state visitors (about 87 percent) traveled from either the South (36 percent) or Midwest (51 percent excluding Missouri). Nine percent traveled from western states while only four percent came from the Northeast. A relatively larger proportion of heritage visitors compared to non-heritage visitors originated their travel from out-of-state (81 percent vs. 68 percent). The numbers also suggest that heritage visitors compared to non-heritage traveled from a further distance to visit Missouri as fifteen percent of heritage travelers came from either the West or Northeast while nine percent of non-heritage visitors traveled from the same regions. Similarly, 25 percent of heritage visitors compared to 30 percent of non-heritage visitors came from states adjacent to Missouri (Arkansas, Iowa, Illinois, and Kansas). Since the tendency to stay overnight may depend in part on how far visitors have to travel, it is not surprising to find a relatively larger proportion of overnighters within the heritage group than their non-heritage counterpart.

Forty-one percent—a relatively large portion—of all travelers to Missouri reported "visit friends or relatives" as their primary trip purpose (exhibit A-6). The tendency for this primary purpose is somewhat more likely for daytrippers (44 percent) than it is for overnighters (40 percent) (see exhibits A-2 and A-4). Indeed, visiting friends or relatives is most prevalent among heritage daytrippers with almost three-quarters (74 percent) reporting it as the primary purpose for visiting Missouri. Those reporting "business" as a primary trip purpose reflect 13 percent of all travelers while those attending a convention or seminar account for only four percent (exhibit A-6). Traveling for "entertainment" as a primary purpose was reported by 19 percent of all overnight visitors (exhibit A-2) with the portion of heritage overnighters reporting this being significantly greater than the portion of non-heritage overnighters who did so (29 percent vs. 18 percent).

The variable "number of trip activities reported" presents a highly skewed distribution but overall, surveyed travelers reported an average number of 1.5 trip activities during their visit to Missouri (exhibit A-6). According to the data, heritage travelers tend to be involved in more trip activities than non-heritage travelers. The proportion of travelers who reported at least 3 trip activities is almost forty percent for heritage visitors while only about seven percent for non-heritage travelers. These distributions indicate that heritage travelers averaged 2.3 activities, which is almost twice as much as the average number of activities reported by non-heritage travelers (1.4 activities). It is important to keep in mind however that heritage travelers by definition reported the activity "visit historical places/museum." Thus, the difference in the average number of activities reported between heritage and non-heritage travelers is almost solely explained by this additional special activity.

While shopping is a major activity for all visitors, it is preferred by heritage travelers. Forty-one percent of heritage visitors reported shopping as a trip activity whereas 27 percent of non-heritage travelers did so (exhibit A-6). The data also suggests that heritage travelers are five times more likely than non-heritage travelers to visit a national or state park where the difference in likelihood is more distinct between the overnighters of each group (exhibit A-2). Hunting, fishing and hiking are also relatively popular trip activities for visitors to Missouri particularly for overnighters (13 percent of heritage and 15 percent of non-heritage). Travelers to Missouri are not likely to play golf, tennis, go skiing, or visit the beach as only 2 percent reported these activities.

Almost half (47 percent) of all visitors to Missouri travel alone (exhibit A-6), regardless of whether the traveler is a daytripper or not. Heritage travelers however are less likely than their non-heritage counterparts to travel alone. The proportion of heritage "single-travelers" is 36 percent whereas for non-heritage "singles-travelers," the proportion is 48 percent (exhibit A-6). Furthermore, from the travel composition data it is estimated that approximately 63 percent of heritage overnighters travel either as couples, three-or-more adults, or families. The proportion of non-heritage overnighters with this type of travel composition is less, accounting for about 50 percent. This finding may in some way be related to the amount of per-person per-day travel spending resulting from shared expenditures such as accommodations.

When it comes to accommodations, nearly half (46 percent) of all travelers to Missouri who stayed overnight were likely to opt for paid accommodations, (i.e., hotel, motel, or bed & breakfast). Thirty-eight percent on the other hand chose to stay in a private home while 5 percent reported some kind of condo/timeshare arrangement and six percent indicated the use of a recreational vehicle (RV) or tent. Although the distributions for heritage and non-heritage travelers are not that dissimilar there is a slightly higher tendency for heritage travelers versus their non-heritage counterparts (51 versus 46 percent) to stay in a hotel, motel or B&B.

What Do Heritage Tourists Spend in Missouri?

This study estimates the spending by Missouri heritage day-trippers and heritage overnighters as follows:

1. Average annual heritage person-trips (1995–1999)
   a. Day trip 334,572
   b. Overnight 2,905,014
   c. Total 3,239,586

2. Average annual spending per heritage person-trip
   a. Day trip $150
   b. Overnight $265

3. Estimated average total annual spending
   a. Day trip (1b x 2a) $50,185,800
   b. Overnight (2a x 2b) $769,828,710
   c. Total $820,014,510

Recalling the broad definition of a heritage traveler (e.g., "visited a historic site or museum" as one primary trip activity)—it would be unfair to credit the *full* $820 million trip expenditure to heritage tourism. As an example, that would include all the spending of a Missouri business traveler to St. Louis who also planned to visit Gateway Arch. We need a more heritage-focused expenditure tally. CUPR has therefore *estimated* the share of total outlays by Missouri heritage travelers that can realistically be credited to heritage purposes—referred to as "heritage-attributed expenditures." This specification involved consideration of "purpose of trip," by traveler and other factors.

The adjusted (heritage-attributed) expenditures are estimated at $117 per person-trip for heritage daytripper (down from the $150 total spending per person trip without adjustment) and $211 per-person trip for overnighters (down from the $265 unadjusted amount). The spending proportions are based on the proportion of activities undertaken that are heritage or heritage-related. That resulted in the following calculations:

1. Average annual person-trips (1995–1999)
   a. Day trip 334,572
   b. Overnight 2,905,014
   c. Total 3,239,586

2. Estimated heritage adjusted spending per person-trip
   a. Day trip $117.40
   b. Overnight $214.00

3. Estimated heritage-adjusted total annual spending
   a. Day trip (1a x 2a) $39,278,753
   b. Overnight (1b x 2b) $621,672,996
   c. Total $660,951,749

There was rounding involved in the above calculations (e.g., the estimated heritage-adjusted day trip per-person expenditure is actually $177.40). In fact, we did the calculations using the raw and unrounded figures and these calculations indicated an estimated annual heritage travel expenditure in Missouri of about $660 million. Of that total, $39.3 million is generated by heritage day travelers and $621.7 million is generated by their overnight heritage counterparts.

TOTAL ECONOMIC IMPACTS FROM HERITAGE TOURISM

The following section translates the $660 million annual Missouri heritage-attributed direct spending into total economic benefits by applying the Preservation Economic Impact Model (PEIM). An overview of the results is contained in exhibit 3.9 below. The total annual economic impacts from the $660 million in annual spending by Missouri heritage travelers, encompassing both direct and multiplier effects, included, at the national level, the following: 28,019 jobs; $606 million in income; $1.068 billion in gross domestic product; and $254 million in taxes. Missouri received a large share of these gains. On an annual basis from the heritage tourism, Missouri realized 20,077 jobs; $325 million in income; $574 million in gross state product; $148 million in taxes (including $79 million in state–local taxes); and annual in-state wealth creation of about $506 million.

EXHIBIT 3.9
Total Economic Impacts of the Annual Missouri Heritage Tourism Spending ($660 Million Spent)

	In Missouri	Outside Missouri	Total (U.S.)
Jobs (person years)	20,077	7,942	28,019
Income ($millions)	325	281	606
GDP/GSP ($millions)	574	494	1,068
Total taxes ($millions)	148	106	254
Federal ($millions)	68	54	122
State/Local ($millions)	79	53	132
In-state wealth ($millions) (GSP minus federal taxes)	506	—	—

[a]GDP/GSP = Gross Domestic Product/Gross State Product.

Nationwide Impacts

The details of the national economic effects of the $660 million in direct heritage tourism spending are contained in exhibits 3.10 to 3.11. Item 1 of Section II in exhibit 3.10 shows, for instance, that the direct effects of heritage tourism spending to the nation translate into 15,547 new jobs, and an increase of $182 million in income and $344 million in GDP. The GDP/investment ratio (0.52) reveals even more significant levels of importing in the support of heritage tourism than in the support of historic building rehabilitation (GDP/investment ratio = 0.63). Multiplier effects add 12,472 more heritage-related jobs, $424 million more income, and $724 million more GDP. Therefore, the total economic impacts of Missouri heritage tourism—the sum of its direct and indirect and induced effects—are 28,019 jobs (15,547 + 12,472), $606 million income ($182 million + $424 million), and $1,068 million in GDP ($344 million + $724 million).

In most instances, the indirect and induced effects exceed the direct effects (the traditional multipliers are near to or greater than 2.0). Nevertheless, the multipliers tend to be somewhat lower for heritage tourism than for historic building rehabilitation. This difference is due to the relatively greater amount of imported goods required to support heritage tourism. Importation reduces the number of intranational interindustry interactions that create multiplier effects.

Of the total 28,019 jobs generated nationwide by Missouri heritage tourism, the bulk are in three major industries: retail trade (11,243 jobs), services (8,975 jobs), and manufacturing (2,562 jobs) (exhibit 3.10). Of the total $606 million in labor income generated, these same three industries account for $130 million, $169 million, and $87 million, respectively. Simple division of the number of jobs into the amount of labor income generated shows that nationwide the labor income per job supporting heritage tourism is $11,591 for retail trade, $18,846 for services, and $34,121 for manufacturing. Because of Missouri heritage tourism's emphasis in retail trade and services, the nation's average labor income per job supporting the tourism is $21,635. This figure is substantially lower than the $33,155 national average income per job supporting the state's historic building rehabilitation since rehabilitation requires many more high-paying construction jobs.

The dichotomy in job quality is even starker between jobs created indirectly and directly by Missouri heritage tourism. Items 1 and 2 in Section II of exhibit 3.10 reveal that indirectly

created jobs pay on average $33,979, while jobs created directly pay on average $11,733—a difference of $22,246 per job. Low-paying jobs, in other words, indirectly create high-paying jobs. Some, but not all, of the pay gap between direct and indirect jobs is due to the part-time nature of the direct jobs created in the retail trade and service industries. A finer breakdown of national economic impacts by industry (exhibit 3.11) shows that of the 8,975 jobs created in the service industries, about 56 percent (5,024 jobs) are in the hotels/lodging category. Further, about 83 percent of the 11,243 retail jobs created through Missouri heritage tourism are in eating/drinking establishments (9,282 jobs). These two industries are notorious for paying low wages (although the income numbers in this study include reported tips as well) and are composed of part-time jobs in unusually high proportions.

An evaluation of job productivity (GDP per job) reveals an even larger gap of $35,878 ($58,025 versus $22,147) between indirect and direct jobs supporting Missouri heritage tourism. The differences between the two indirect-to-direct-job pay gaps (labor income/job and GDP/job) suggests that heritage tourism is far more profitable to firms indirectly affected by the industry. At any rate, the pay gap between the indirectly and directly created jobs in this category causes the traditional national multiplier for labor income to be higher for heritage tourism than for historic building rehabilitation. It also causes the national employment multiplier to be extraordinarily low.

Which helps the national economy more on average, $1 million in heritage tourism spending or $1 million in historic building rehabilitation? The last exhibits 2.6 and 3.10 of each section provide the answer. A comparison of these two sections reveals that historic building rehabilitation provides a higher return on two of the four measures. One can also readily infer that weak investment in historic building rehabilitation will eventually lead to lower annual spending on heritage tourism. Nonetheless, while historic building rehabilitation technically "helps" the national economy more than does heritage tourism, it may be difficult to get one without the other.

State-Level Impacts

Exhibits 3.12 and 3.13 present the total economic effects of heritage tourism spending in state. Item 1 in Section II of exhibit 3.12 shows that Missouri retains about 14,590 or 94 percent, of the total direct jobs (15,547) created in support of heritage tourism. This percentage is higher than the 80 percent job retention rate for historic building rehabilitation. Missouri retains a lower proportion of the indirect and induced heritage tourism employment impacts—only about 44 percent (5,487 of 12,472 jobs).

In sum, through heritage tourism Missouri gains 20,077 jobs (85 percent of the total 28,019 jobs generated nationally), $325 million in income (54 percent of the $606 million in income generated nationally), and $574 million in wealth (54 percent of the $1.068 billion added to national GDP). Heritage tourism's state multiplier effects (measured by subtracting one from the multipliers and dividing the region's multiplier by the nation's)[1] are about 40 percent of the nation's (exhibits 3.10 and 3.13). Thus, the economic benefits of heritage tourism that accrue to Missouri are concentrated in the direct effects.

[1]Multipliers are defined as the sum of direct, indirect, and induced effects divided by the direct effects. Since direct effects are in both the numerator and denominator, multipliers can alternatively be defined as one plus the sum of indirect and induced effects divided by the direct effects. Hence by subtracting one we get only the multiplier effect itself, which is the sum of indirect and induced effects divided by the direct effects.

Finer-grained detail of state impacts by industry (exhibit 3.13) are also available and reflect concentrations similar to those noted at the national level. Of the 20,007 total state-level jobs derived from heritage tourism, most are to be found in eating/drinking establishments (8,810 jobs) and hotels/lodging (4,803 jobs). Of the total $325 million generated in annual income, the eating/drinking and hotels/lodging industries garner $79 million and $61 million, respectively. The eating/drinking and hotels/lodging industries also comprise $158 million and $122 million, respectively, of the total $574 million increase in state gross domestic product (exhibit 3.13).

EXHIBIT 3.10
National Economic and Tax Impacts of Annual
Missouri Heritage Tourism Spending ($ 660 million)

	Employment (jobs)	Income (000$)	Gross Domestic Product (000$)
I. TOTAL EFFECTS (Direct and Indirect/Induced)*			
Private			
1. Agriculture	393	6,456	25,389
2. Agri. Serv., Forestry, & Fish	184	4,432	4,679
3. Mining	131	3,556	16,399
4. Construction	745	28,052	37,071
5. Manufacturing	2,562	87,419	148,269
6. Transport. & Public Utilities	1,103	41,228	91,129
7. Wholesale	851	38,611	58,451
8. Retail Trade	11,243	130,322	227,167
9. Finance, Ins., & Real Estate	1,624	89,819	182,801
10. Services	8,975	169,144	269,805
Private Subtotal	27,811	599,038	1,061,159
Public			
11. Government	209	7,167	6,852
Total Effects (Private and Public)	28,019	606,204	1,068,011
II. DISTRIBUTION OF EFFECTS/MULTIPLIER			
1. Direct Effects	15,547	182,412	344,322
2. Indirect and Induced Effects	12,472	423,792	723,689
3. Total Effects	28,019	606,204	1,068,011
4. Multipliers (3/1)	1.80	3.32	3.10
III. COMPOSITION OF GROSS STATE PRODUCT			
1. Wages--Net of Taxes			588,584
2. Taxes			
a. Local/State			131,826
b. Federal			
General			73,214
Insurance Trusts			49,015
Federal Subtotal			122,228
c. Total taxes (2a+2b)			254,054
3. Profits, dividends, rents, and other			225,373
4. Total Gross State Product (1+2+3)			1,068,011
EFFECTS PER MILLION DOLLARS OF INITIAL EXPENDITURE			
Employment (Jobs)			42.5
Income			918,753
Local/State Taxes			199,737
Gross State Product			1,618,199

Note: Detail may not sum to totals due to rounding.

*Terms:

Direct Effect (State)—the proportion of direct spending on goods and services produced.

Indirect Effects—the value of goods and services needed to support the provision of those direct economic effects.

Induced Effects—the value of goods and services needed by households that provide the direct and indirect labor.

EXHIBIT 3.11
National Economic Impacts (Industry Detail) of Annual Missouri Heritage Tourism Spending ($ 660 million)

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Agriculture	**393**	**6,456**	**25,389**
Dairy Farm Products	64	1,211	5,228
Eggs	2	39	117
Meat Animals	131	2,000	8,511
Misc. Livestock	6	107	196
Wool	1	9	38
Cotton	7	120	360
Tobacco	1	9	51
Grains & Misc. Crops	11	148	641
Feed Crops	51	870	3,754
Fruits & Nuts	60	772	2,904
Vegetables	22	482	1,325
Greenhouse & Nursery Products	8	139	598
Sugar Beets & Cane	5	101	320
Flaxseed, Peanuts, Soybean, Sunflower	25	449	1,346
Agri. Serv., Forestry, & Fish	**184**	**4,432**	**4,679**
Agri. Services (07)	170	4,162	3,871
Forestry (08)	5	107	320
Fishing, Hunting, & Trapping (09)	9	163	488
Mining	**131**	**3,556**	**16,399**
Coal Mining (12)	26	976	2,404
Oil & Gas Extraction (13)	93	2,159	13,116
Nonmetal Min.-Ex. Fuels (14)	6	233	499
Metal Mining (10)	6	188	380
Construction	**745**	**28,052**	**37,071**
General Bldg. Contractors (15)	304	9,764	12,292
Heavy Const. Contractors (16)	110	3,035	3,648
Special Trade Contractors (17)	331	15,254	21,130
Manufacturing	**2,562**	**87,419**	**148,269**
Chemicals & Allied Prod. (28)	168	9,173	19,085
Petroleum & Coal Prod. (29)	34	2,207	8,386
Rubber & Misc. Plastics (30)	85	2,814	3,803
Leather & Leather Prod. (31)	24	594	989
Stone, Clay, & Glass (32)	41	1,457	2,289
Primary Metal Prod. (33)	71	3,358	4,862
Fabricated Metal Prod. (34)	110	3,868	6,063
Machinery, Except Elec. (35)	87	3,677	4,669
Electric & Elec. Equip. (36)	130	5,417	9,594
Transportation Equipment (37)	104	5,097	7,924
Instruments & Rel. Prod. (38)	40	1,746	1,961
Misc. Manufacturing Ind's. (39)	470	10,343	17,322
Food & Kindred Prod. (20)	540	17,569	32,262
Tobacco Manufactures (21)	5	228	682
Textile Mill Prod. (22)	128	2,995	4,000
Apparel & Other Prod. (23)	112	2,548	3,289
Limber & Wood Prod. (24)	54	1,381	2,188
Furniture & Fixtures (25)	34	858	1,193
Paper & Allied Prod. (26)	121	5,035	7,972
Printing & Publishing (27)	203	7,052	9,736

EXHIBIT 3.11 (continued)
National Economic Impacts (Industry Detail) of Annual Missouri Heritage Tourism Spending ($ 660 million)

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Transport. & Public Utilities	**1,103**	**41,228**	**91,129**
Railroad Transportation (40)	65	1,080	2,968
Local Pass. Transit (41)	148	2,067	3,092
Trucking & Warehousing (42)	317	12,422	13,904
Water Transportation (44)	23	875	1,385
Transportation by Air (45)	81	2,849	4,731
Pipe Lines-Ex. Nat. Gas (46)	2	229	976
Transportation Services (47)	53	1,621	2,756
Communication (48)	202	9,662	23,631
Elec., Gas, & Sanitary Serv. (49)	211	10,424	37,687
Wholesale	**851**	**38,611**	**58,451**
Wholesale-Durable Goods (50)	357	20,733	26,923
Wholesale-Nondurable Goods (51)	494	17,878	31,528
Retail Trade	**11,243**	**130,322**	**227,167**
Bldg. Mat.-Garden Supply (52)	79	2,100	3,150
General Merch. Stores (53)	362	10,084	8,405
Food Stores (54)	332	6,757	8,906
Auto. Dealers-Serv. Stat. (55)	320	7,695	12,626
Apparel & Access. Stores (56)	212	3,343	4,686
Furniture & Home Furnish. (57)	59	2,038	2,026
Eating & Drinking Places (58)	9,282	84,226	168,423
Miscellaneous Retail (59)	596	14,080	18,945
Finance, Ins., & Real Estate	**1,624**	**89,819**	**182,801**
Banking (60)	223	6,674	20,953
Nondep. Credit Institut. (61)	395	25,361	26,867
Security, Comm. Brokers (62)	154	6,871	12,416
Insurance Carriers (63)	253	12,467	17,926
Ins. Agents, Brokers (64)	232	8,634	12,065
Real Estate (65)	152	9,958	72,007
Holding and Invest. Off. (67)	214	19,854	20,566
Services	**8,975**	**169,144**	**269,805**
Hotels & Other Lodging (70)	5,024	65,149	129,283
Personal Services (72)	372	9,266	10,357
Business Services (73)	1,141	28,762	40,348
Auto Repair, Serv., Garages (75)	200	4,732	11,318
Misc. Repair Services (76)	76	2,674	3,916
Motion Pictures (78)	303	5,966	7,463
Amusement & Recreation (79)	653	12,058	17,009
Health Services (80)	234	6,536	8,036
Legal Services (81)	105	5,549	8,512
Educational Services (82)	131	2,952	3,148
Social Services (83)	136	1,856	1,931
Museums, Gardens & Mem. Orgs. (84, 86)	271	6,836	7,018
Engineer. & Manage. Serv. (87)	210	11,042	13,796
Private Households (88)	0	0	0
Miscellaneous Services (89)	120	5,765	7,669
Government	**209**	**7,166**	**6,852**
Total	**28,019**	**606,204**	**1,068,011**

Note: Detail may not sum to totals due to rounding.

EXHIBIT 3.12

In-State Economic and Tax Impacts of Annual Missouri Heritage Tourism Spending ($ 660 million)

	Employment (jobs)	Income ($000)	Gross Domestic Product ($000)
I. TOTAL EFFECTS (Direct and Indirect/Induced)*			
Private			
1. Agriculture	93	671	2,729
2. Agri. Serv., Forestry, & Fish	58	1,169	1,071
3. Mining	2	39	108
4. Construction	122	10,453	14,266
5. Manufacturing	445	12,783	21,651
6. Transport. & Public Utilities	478	15,578	34,187
7. Wholesale	375	14,551	22,678
8. Retail Trade	10,294	109,170	196,176
9. Finance, Ins., & Real Estate	877	41,873	82,658
10. Services	7,218	115,211	194,960
Private Subtotal	19961	321,499	570,483
Public			
11. Government	116	3,510	3,296
Total Effects (Private and Public)	20,077	325,009	573,780
II. DISTRIBUTION OF EFFECTS/MULTIPLIER			
1. Direct Effects	14,590	167,826	316,837
2. Indirect and Induced Effects	5,487	157,183	256,942
3. Total Effects	20,077	325,009	573,780
4. Multipliers (3/1)	1.38	1.94	1.81
III. COMPOSITION OF GROSS STATE PRODUCT			
1. Wages—Net of Taxes			333,163
2. Taxes			
a. Local/State			79,481
b. Federal			
General			41,936
Insurance Trusts			26,537
Federal Subtotal			68,473
c. Total taxes (2a+2b)			147,954
3. Profits, dividends, rents, and other			92,662
4. Total Gross State Product (1+2+3)			573,780
EFFECTS PER MILLION DOLLARS OF INITIAL EXPENDITURE			
Employment (Jobs)			30.4
Income			492,437
Local/State Taxes			120,426
Gross State Product			869,363

Note: Detail may not sum to totals due to rounding.

*Terms:

Direct Effect (State)—the proportion of direct spending on goods and services produced.

Indirect Effects—the value of goods and services needed to support the provision of those direct economic effects.

Induced Effects—the value of goods and services needed by households that provide the direct and indirect labor.

EXHIBIT 3.13
In-State Economic Impacts (Industry Detail) of Annual Missouri Heritage Tourism Spending ($660 million)

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Agriculture	**93**	**671**	**2,729**
Dairy Farm Products	0	0	0
Eggs	0	5	15
Meat Animals	68	478	2,008
Misc. Livestock	0	0	1
Wool	0	0	0
Cotton	0	1	4
Tobacco	0	0	0
Grains & Misc. Crops	5	21	91
Feed Crops	4	70	300
Fruits & Nuts	12	24	92
Vegetables	1	13	13
Greenhouse & Nursery Products	1	22	97
Sugar Beets & Cane	0	0	0
Flaxseed, Peanuts, Soybean, Sunflower	2	36	108
Agri. Serv., Forestry, & Fish	**58**	**1,169**	**1,071**
Agri. Services (07)	58	1,167	1,066
Forestry (08)	0	1	3
Fishing, Hunting, & Trapping (09)	0	0	1
Mining	**2**	**39**	**108**
Coal Mining (12)	0	0	0
Oil & Gas Extraction (13)	1	7	40
Nonmetal Min.-Ex. Fuels (14)	1	33	68
Metal Mining (10)	0	0	1
Construction	**122**	**10,453**	**14,266**
General Bldg. Contractors (15)	58	3,136	4,056
Heavy Const. Contractors (16)	14	709	862
Special Trade Contractors (17)	50	6,608	9,348
Manufacturing	**445**	**12,783**	**21,651**
Chemicals & Allied Prod. (28)	29	1,176	2,453
Petroleum & Coal Prod. (29)	3	114	380
Rubber & Misc. Plastics (30)	5	131	176
Leather & Leather Prod. (31)	3	54	90
Stone, Clay, & Glass (32)	9	282	425
Primary Metal Prod. (33)	2	86	124
Fabricated Metal Prod. (34)	14	408	638
Machinery, Except Elec. (35)	7	217	276
Electric & Elec. Equip. (36)	8	257	461
Transportation Equipment (37)	19	851	1,334
Instruments & Rel. Prod. (38)	5	189	213
Misc. Manufacturing Ind's. (39)	44	707	1,223
Food & Kindred Prod. (20)	169	4,937	9,065
Tobacco Manufactures (21)	0	4	7
Textile Mill Prod. (22)	0	11	15
Apparel & Other Prod. (23)	27	420	543
Limber & Wood Prod. (24)	10	211	335
Furniture & Fixtures (25)	6	151	210
Paper & Allied Prod. (26)	17	574	904
Printing & Publishing (27)	65	2,002	2,779

EXHIBIT 3.13 (continued)
In-State Economic Impacts (Industry Detail) of Annual Missouri Heritage Tourism Spending ($660 million)

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Transport. & Public Utilities	**478**	**15,578**	**34,187**
Railroad Transportation (40)	7	219	602
Local Pass. Transit (41)	113	1,356	2,029
Trucking & Warehousing (42)	135	4,841	5,436
Water Transportation (44)	4	119	188
Transportation by Air (45)	26	840	1,395
Pipe Lines-Ex. Nat. Gas (46)	0	11	48
Transportation Services (47)	21	589	1,027
Communication (48)	92	3,786	9,294
Elec., Gas, & Sanitary Serv. (49)	80	3,818	14,168
Wholesale	**375**	**14,551**	**22,678**
Wholesale-Durable Goods (50)	127	6,416	8,332
Wholesale-Nondurable Goods (51)	248	8,135	14,346
Retail Trade	**10,294**	**109,170**	**196,176**
Bldg. Mat.-Garden Supply (52)	51	1,112	1,667
General Merch. Stores (53)	285	6,920	5,768
Food Stores (54)	244	4,269	5,628
Auto. Dealers-Serv. Stat. (55)	245	4,725	7,752
Apparel & Access. Stores (56)	150	1,889	2,648
Furniture & Home Furnish. (57)	35	1,053	1,047
Eating & Drinking Places (58)	8,810	78,951	157,874
Miscellaneous Retail (59)	473	10,252	13,792
Finance, Ins., & Real Estate	**877**	**41,873**	**82,658**
Banking (60)	112	3,307	10,384
Nondep. Credit Institut. (61)	239	13,369	14,163
Security, Comm. Brokers (62)	67	2,704	4,887
Insurance Carriers (63)	119	5,203	7,481
Ins. Agents, Brokers (64)	113	3,746	5,234
Real Estate (65)	77	4,274	30,907
Holding and Invest. Off. (67)	151	9,269	9,602
Services	**7,218**	**115,211**	**194,960**
Hotels & Other Lodging (70)	4,803	61,489	122,119
Personal Services (72)	268	5,970	6,643
Business Services (73)	645	14,791	20,481
Auto Repair, Serv., Garages (75)	131	2,912	6,981
Misc. Repair Services (76)	32	900	1,302
Motion Pictures (78)	214	2,549	3,189
Amusement & Recreation (79)	486	8,139	11,636
Health Services (80)	131	3,456	4,247
Legal Services (81)	41	1,949	2,990
Educational Services (82)	65	1,277	1,369
Social Services (83)	76	895	931
Museums, Gardens & Mem. Orgs. (84, 86)	148	3,482	3,571
Engineer. & Manage. Serv. (87)	111	4,985	6,290
Private Households (88)	0	0	0
Miscellaneous Services (89)	68	2,416	3,213
Government	**116**	**3,510**	**3,296**
Total	**20,077**	**325,009**	**573,780**

Note: Detail may not sum to totals due to rounding.

Addenda A

Trip Characteristics: Overnight Travelers			
	All Overnighters	Heritage Overnighters	Non-Heritage Overnighters
Percent of All Overnighters	100%	14%	86%
Total Person Trips	103,494,942	14,525,071	88,969,871
Total Expenditures	$19,931,247,432	$3,103,825,264	$16,827,422,168
Average Expenditure/Travel Party	$345.78	$430.81	$333.63
Average Expenditure/Person/Trip	$241.55	$264.75	$237.80
Average Travel Party Size	2.0	2.2	1.9
Average # of Days in MO	4.1	4.8	4.0
Average # of Trip Activities	1.6	2.4	1.4

Trip Characteristics *continued*	All Overnighters	Heritage Overnighters	Non-Heritage Overnighters
Primary Trip Purpose			
Visit Friend or Relatives	40%	37%	40%
Outdoor Recreation	8%	5%	9%
Entertainment	19%	29%	18%
Business/ Pleasure	18%	12%	19%
Convention/ Seminar	4%	4%	4%
Business	14%	8%	15%
Personal	7%	6%	7%
Travel Party Composition			
Singles	47%	37%	48%
Couples	28%	31%	28%
Three+ Adults	3%	5%	3%
Families	22%	27%	21%
Accomodation Type (Person-nights)			
Condo/ Time Share	5%	3%	5%
Hotel/ Motel/ B&B	46%	51%	46%
Private Home	38%	38%	38%
RV/ Tent	6%	5%	7%
Other	5%	3%	6%

Trip Characteristics *continued*	All Overnighters	Heritage Overnighters	Non-Heritage Overnighters
Originating State			
Missouri	30%	19%	31%
Adjacent States (AR, IA, IL, KS)	28%	25%	28%
Northeast Region	3%	6%	3%
South Region	26%	30%	26%
Midwest Region States	57%	44%	59%
Western	7%	11%	6%
Trip Activity			
Historical places/ Museums	14%	100%	0%
National/ State Park	7%	21%	5%
Cultural events/ Festivals	10%	14%	9%
Theme/ Amusement Park	13%	21%	12%
Outdoor (e.g., hunt, fish, hike)	15%	13%	15%
Shopping	34%	44%	32%
Nightlife/ Dancing	9%	9%	9%
Beaches	1%	2%	1%
Golf/ Tennis/ Skiing	3%	2%	3%
Sports event	6%	7%	6%
Gambling	4%	5%	4%
Other activity	4%	0%	4%

Demographics * Overnight Visitors

	All Overnighters	Heritage Overnighters	Non-Heritage Overnighters
Age			
18-24 years	2%	4%	2%
25-34 years	23%	20%	23%
35-44 years	24%	25%	24%
45-54 years	22%	21%	22%
55-64 years	15%	16%	15%
65 and over	16%	18%	15%
Average Age	47	48	47
Education			
Some High school or less	3%	4%	3%
High school graduate	18%	16%	19%
Some college	24%	26%	23%
College graduate	33%	31%	33%
Post-graduate	20%	19%	20%

*Based on Head of Household.

Demographics * *continued*	All Overnighters	Heritage Overnighters	Non-Heritage Overnighters
Household Income			
Less than $20,000	14%	16%	14%
$20,000-$29,999	14%	15%	14%
$30,000-$39,999	15%	16%	15%
$40,000-$49,999	12%	13%	12%
$50,000-$74,999	23%	20%	23%
$75,000-$99,999	12%	11%	12%
$100,000-$174,999	9%	8%	9%
$175,000 or more	1%	1%	2%
Average Income **	$50,500	$49,200	$50,700
Median Income	$45,333	$41,700	$45,475
Occupation			
Professional	43%	40%	43%
Administrative Support	11%	11%	11%
Service	4%	5%	4%
Farming	2%	2%	2%
Craftsman	7%	7%	7%
Operator	7%	8%	7%
Other	26%	28%	26%

* Based on Head of Household.

** Truncated Mean, i.e., the reported levels do not take into account annual households incomes of $175K or more. Thus the reported mean levels underestimate the true means.

Trip Characteristics: Daytrip Visitors

	All Daytrippers	Heritage Daytrippers	Non-Heritage Daytrippers
Percent of All Daytrippers	100%	3%	97%
Total Person Trips	56,829,493	1,672,858	55,156,634
Total Expenditures	$4,780,407,480	$196,785,442	$4,583,622,038
Average Expenditure/Travel Party	$148.64	$230.53	$146.41
Average Expenditure/Person/Trip	$102.36	$149.52	$101.08
Average Travel Party Size	2.0	2.2	2.0
Average # of Trip Activities	1.2	1.5	1.2

Trip Characteristics *continued*

	All Daytrippers	Heritage Daytrippers	Non-Heritage Daytrippers
Primary Trip Purpose			
Visit Friend or Relatives	44%	74%	43%
Outdoor Recreation	6%	0%	6%
Entertainment	16%	0%	16%
Business/ Pleasure	4%	6%	4%
Convention/ Seminar	3%	0%	3%
Business	13%	0%	13%
Personal	9%	19%	9%
Travel Party Composition			
Singles	47%	34%	48%
Couples	28%	33%	27%
Three+ Adults	3%	6%	3%
Families	22%	28%	22%

Trip Characteristics *continued*	All Daytrippers	Heritage Daytrippers	Non-Heritage Daytrippers
Originating State			
Missouri	33%	22%	34%
Adjacent States (AR, IA, IL, KS)	33%	29%	34%
Northeast Region	2%	5%	2%
South Region	21%	24%	21%
Midwest Region States	66%	53%	67%
Western	5%	6%	5%
Trip Activity			
Historical places/ Museums	6%	100%	3%
National/ State Park	3%	14%	2%
Cultural events/ Festivals	5%	6%	5%
Theme/ Amusement Park	5%	4%	5%
Outdoor (e.g., hunt, fish, hike)	5%	8%	5%
Shopping	19%	16%	19%
Nightlife/ Dancing	2%	0%	2%
Beaches	0%	0%	0%
Golf/ Tennis/ Skiing	1%	0%	1%
Sports event	3%	2%	3%
Gambling	3%	1%	3%
Other activity	4%	1%	4%

Demographics * Daytrip Visitors

	All Daytrippers	Heritage Daytrippers	Non-Heritage Daytrippers
Age			
18-24 years	2%	2%	2%
25-34 years	20%	14%	20%
35-44 years	23%	22%	23%
45-54 years	20%	14%	20%
55-64 years	15%	20%	14%
65 and over	21%	29%	20%
Average Age	49	53	49
Education			
Some High school or less	6%	12%	6%
High school graduate	19%	19%	19%
Some college	26%	29%	26%
College graduate	29%	25%	29%
Post-graduate	18%	15%	18%

*Based on Head of Household.

Demographics * *continued*

	All Daytrippers	Heritage Daytrippers	Non-Heritage Daytrippers
Household Income			
Less than $20,000	22%	23%	22%
$20,000-$29,999	16%	18%	16%
$30,000-$39,999	14%	11%	15%
$40,000-$49,999	11%	6%	11%
$50,000-$74,999	21%	25%	21%
$75,000-$99,999	9%	13%	9%
$100,000-$174,999	6%	4%	6%
$175,000 or more	1%	1%	1%
Average Income **	$44,600	$44,400	$44,600
Median Income	$36,250	$38,275	$36,250
Occupation			
Professional	36%	25%	36%
Administrative Support	10%	7%	11%
Service	5%	8%	5%
Farming	2%	0%	2%
Craftsman	6%	7%	6%
Operator	8%	7%	8%
Other	32%	45%	32%

*Based on Head of Household.

** Truncated Mean, i.e., the reported levels do not take into account annual households incomes of $175K or more. Thus the reported mean levels underestimate the true means.

Addenda B

Trip Characteristics			
	All Travelers	Heritage Travelers	Non-Heritage Travelers
Percent of All Travelers	100%	10%	90%
Percent Overnighters	65%	90%	62%
Total Person Trips	160,324,434	16,197,929	144,126,505
Total Expenditures	$24,711,654,912	$3,300,610,706	$21,411,044,206
Average Expenditure/Travel Party	$275.18	$409.59	$261.93
Average Expenditure/Person/Trip	$221.89	$286.32	$214.06
Average Travel Party Size	2.0	2.2	1.9
Average # of Days in MO	2.9	4.4	2.8
Average # of Trip Activities	1.5	2.3	1.4

Trip Characteristics *continued*	All Travelers	Heritage Travelers	Non-Heritage Travelers
Primary Trip Purpose			
Visit Friend or Relatives	41%	40%	41%
Outdoor Recreation	7%	4%	8%
Entertainment	18%	26%	17%
Business/ Pleasure	4%	6%	4%
Convention/ Seminar	4%	4%	4%
Business	13%	7%	14%
Personal	8%	8%	8%
Travel Party Composition			
Singles	47%	36%	48%
Couples	28%	31%	28%
Three+ Adults	3%	5%	3%
Families	22%	27%	21%
Accomodation Type (person-nights)			
Condo/ Time Share	5%	3%	5%
Hotel/ Motel/ B&B	46%	51%	46%
Private Home	38%	38%	38%
RV/ Tent	6%	5%	7%
Other	5%	3%	6%

Trip Characteristics *continued*	All Travelers	Heritage Travelers	Non-Heritage Travelers
Originating State			
Missouri	31%	19%	32%
Adjacent States (AR, IA, IL, KS)	30%	25%	30%
Northeast Region	3%	5%	3%
South Region	25%	30%	24%
Midwest Region States	66%	45%	62%
Western	6%	10%	6%
Trip Activity			
Historical places/ Museums	11%	100%	1%
National/ State Park	6%	20%	4%
Cultural events/ Festivals	8%	13%	8%
Theme/ Amusement Park	10%	19%	9%
Outdoor (e.g., hunt, fish, hike)	11%	13%	11%
Shopping	28%	41%	27%
Nightlife/ Dancing	6%	8%	6%
Beaches	1%	1%	1%
Golf/ Tennis/ Skiing	2%	1%	2%
Sports event	5%	6%	5%
Gambling	4%	4%	3%
Other activity	4%	0%	4%

Demographics *	All Travelers	Heritage Travelers	Non-Heritage Travelers
Age			
18-24 years	2%	1%	2%
25-34 years	22%	20%	22%
35-44 years	23%	24%	23%
45-54 years	21%	20%	21%
55-64 years	15%	16%	15%
65 and over	17%	19%	17%
Average Age	48	49	48
Education			
Some High school or less	4%	5%	4%
High school graduate	19%	16%	19%
Some college	24%	26%	24%
College graduate	31%	31%	32%
Post-graduate	19%	19%	19%

*Based on Head of Household.

Demographics * *continued*

	All Travelers	Heritage Travelers	Non-Heritage Travelers
Household Income			
Less than $20,000	17%	17%	17%
$20,000-$29,999	15%	15%	15%
$30,000-$39,999	15%	16%	15%
$40,000-$49,999	11%	12%	11%
$50,000-$74,999	22%	21%	22%
$75,000-$99,999	11%	11%	11%
$100,000-$174,999	8%	8%	8%
$175,000 or more	2%	1%	2%
Average Income**	$48,400	$48,700	$48,360
Median Income	$41,700	$41,275	$41,700
Occupation			
Professional	40%	39%	40%
Administrative Support	11%	11%	11%
Service	4%	5%	4%
Farming	2%	2%	2%
Craftsman	7%	7%	7%
Operator	7%	8%	7%
Other	28%	30%	28%

* Based on Head of Household

** Truncated Mean, i.e., the reported levels do not take into account annual households incomes of $175K or more. Thus the reported mean levels underestimate the true means.

CHAPTER FOUR

Profile of, and Economic Impacts from, the Missouri Main Street Program

INTRODUCTION AND SUMMARY

This chapter examines the contributions of the Missouri Main Street Program. It begins with an overview of the national Main Street effort. This is followed by a profile of the Missouri Main Street initiative and details of its direct investment as well as its total economic impacts. The analysis is for the fiscal year (FY) 1999, which, when this study commenced, was the last annual period for which Missouri Main Street Program information was fully available. The results of the analysis are summarized below:

- The State of Missouri has a moderately active Main Street program with one dozen communities participating (Cape Girardeau, Fayette, Mountain Grove, Warrensburg, Branson, Lee's Summit, Sedalia, Carthage, Clarksville, Clinton, Nevada, and Washington).

- In FY 1999, the Missouri Main Street Program resulted in the following total investment.

EXHIBIT 4.1
Missouri Main Street Program (FY 1999)

Component	
Rehabilitation	$4.8 million
New construction	$1.5 million
Buildings sold	$0.4 million
Total Private investment	$6.7 million
Public investment	$0.3 million
TOTAL	$7.0 million
Number of new jobs	300
Number of new businesses	100

- If we net out the real estate sales from the above tally (since that component does not have the same economic impact as the construction and other investments), as well as rehabilitation and other preservation outlays previously tallied, such as spending by heritage tourists in the Main Street communities (since we want to avoid double counting), and make other adjustments, the average annual Missouri Main Street investment/output is *roughly* $5.4 million of construction plus retail job benefits.

- The total national economic impacts, including both direct and multiplier effects, from the annual average Missouri Main Street investment included a gain of 504 jobs, $13 million in income, $20 million in gross domestic product, and $5 million in taxes. The in-state Missouri gains were roughly 50 to 80 percent of the above-cited figures (see below) with in-state wealth creation of $10 million.

EXHIBIT 4.2
Total Economic Impacts of the Annual Net Missouri Main Street Investment

	In Missouri	Outside Missouri	Total (U.S.)
Jobs (person years)	359	145	504
Income ($million)	8	5	13
GDP/GSP[b] ($million)	11	9	20
Total taxes ($million)	3	2	5
Federal ($million)	1	1	2
State/Local ($million)	2	1	3
In-state wealth ($million) (GSP minus federal taxes)	10	—	—

[b]GDP/GSP=Gross Domestic Product/Gross State Product.

THE MAIN STREET PROGRAM: NATIONAL OVERVIEW

In 1980, the National Trust for Historic Preservation established the National Main Street Center (NMSC). With the goal of revitalizing downtown areas and neighborhood commercial districts across the United States, the NMSC set up the Main Street Program. The program focuses on improving downtown business districts, primarily through historic preservation themes. All Main Street Programs are locally driven and funded, though advice from the NMSC is available. In the past twenty years, almost 2,000 communities and more than forty states have used the Main Street approach to invigorate their downtown areas. The results have produced both economic and social benefits.

Main Street programs are initiated by concerned citizens such as business and property owners or civic and government officials. Public and private community leaders are then called upon to organize the program, raise funds, and hire a Main Street Manager. They also create committees and a board of directors to carry out the work. Once these entities are in place, a long-term strategy can be formed based on local issues and concerns. Each community's overall strategy, however, is based on the Main Street Four Point Approach. The approach stresses looking at four areas in order to encourage successful downtown revitalization. These four components are:

- *Design:* Enhancing the visual appearance of the downtown.

- *Organization:* Building consensus and cooperation among the groups and members that have a concern with the downtown. Groups in both the public and private sectors must collaborate.

- *Promotion:* Marketing the improved downtown to the public to attract customers, investors, developers, and new businesses.

- *Economic Restructuring:* Strengthening the downtown's existing economic assets, while expanding its economic base to meet new opportunities.

The implementation of the Main Street Four Point Approach is based on eight principles known as the Main Street Philosophy. The principles are:

- Comprehensive: A successful revitalization must have a comprehensive long-term approach.
- Incremental: Begin with small projects, which will show progress, then move onto larger ones.
- Self-Help: Local leaders are the key to making the projects successful.
- Public/Private Partnership: Both the public and private sectors must contribute to the program.
- Identifying and Capitalizing on Existing Assets: The existing and unique local assets of a community should be the solid foundation for its program.
- Quality: All elements of the program must be focused on quality.
- Change: Changes in attitude and practice must be made in order to improve the public opinion of the downtown.
- Action-Oriented: Frequent and visible changes will help to change the perception of the downtown, serving as reminders that revitalization is under way.

NMSC provides informational material, in a variety of formats, to assist communities. Often it will provide technical assistance to state programs. It also sponsors a national conference, which provides training. Sometimes, NMSC will provide specialized assistance to a community for a fee.

Downtown revitalization afforded through the Main Street Program is important and worthwhile for many reasons, both tangible and intangible. The most important reasons include:

- Business is strengthened and stabilized: profits are kept in town, local family-owned businesses are supported, and tax revenues increase.
- Main Street districts often become tourist attractions, which draw revenue.
- Infrastructure is improved.
- Jobs are created through construction done during renovations.
- Community-eroding sprawl is controlled.
- A civic forum is created, which develops a sense of community through parades and celebrations held on Main Street.

- Main Street is a symbol of economic health, pride, and community history.

The Main Street Program has been extensively applied. From 1980 to 2000, the total amount of public and private reinvestment in Main Street communities has been $15.2 billion. According to NMSC, 206,000 new jobs have been created as well as 52,000 new businesses and 79,000 building rehabilitations. On average, for every $1 spent, $39 has been reinvested.

THE MISSOURI MAIN STREET PROGRAM

In numerous small Missouri cities, downtowns are in a serious state of decline. The automobile, suburban housing, and the growth of local and regional shopping centers and malls have greatly reduced the traditional role of these communities' downtowns as the principal center of economic activity. Many government programs, such as urban renewal and various city beautification programs, have failed to halt the decline of Missouri's main commercial corridors.

The Missouri Main Street Program attempts to spur revitalization by capitalizing on the unique character of the downtown coupled with development of progressive marketing and management techniques. The Missouri Main Street Program is based on the Main Street Four Point Approach of the NMSC. As noted, the NMSC was established in 1980 by the National Trust for Historic Preservation; the Missouri Main Street Program has been in existence since 1989. The specific mission of the Missouri Main Street Program is to assist communities with a population of less than 50,000 to economically and physically revitalize their downtowns.

The initial legislation creating the Missouri Main Street Program authorized the Missouri Department of Economic Development to select ten demonstration communities. Five communities were chosen in 1989: Boonville, Clinton, Hannibal, Nevada and Washington. Five additional communities were chosen in 1990: Carthage, Clarksville, Kirkwood, Poplar Bluff and Unionville. Each of the demonstration communities received services worth about $40,000 for their participation in the national program during the initial three-year demonstration period.

The program officially recognizes twelve towns today: Cape Giradeau, Fayette, Mountain Grove, Warrensburg, Branson, Lee's Summit, Sedalia, Carthage, Clarksville, Clinton, Nevada, and Washington. Most of the program's efforts are directed toward these official towns, but the program is also available to assist other small towns with a population of less than 50,000. In Missouri it is important to note that there are forty-five active downtown revitalization groups at work in small towns. These groups are independent of the Missouri Main Street program, although Main Street serves as an important clearinghouse and coordinator for all of these groups.

The Missouri Department of Economic Development administers the Main Street program, but demonstration communities also receive assistance from State Historic Preservation Office of the Missouri Department of Natural Resources and the National Main Street Center. Demonstration cities receive a reconnaissance visit, project manager/board training workshop, strategic planning retreat, resource team visit and report, end of year assessment visit, and

modest funding for resource materials. Any community in the state is eligible to receive the following services:

- State information on downtown revitalization.
- Statewide downtown revitalization conferences and workshops.
- Training programs/tools for local Main Street programs.

The overall goal of the state program is to improve the local economy by helping communities capitalize on their individual downtown resources. We present the activities of one illustrative Missouri Main Street Program below.

Illustrative Missouri Main Street Program: Sedalia, Missouri

The data maintained by one Missouri Main Street program in Sedalia provides an example of the types of economic benefits, physical improvements, and other accomplishments achieved by Missouri's Main Street communities. Some indicators of the program's success include the number of: 1. facade renovations, 2. buildings rehabilitated, 3. new businesses, 4. buildings sold, 5. public improvements, and 6. promotions.

Since its founding in 1996, Main Street Sedalia has undertaken a large number of facade renovations, building rehabilitations, and community projects. In the last five years, 31 building facades have been renovated. These renovations cost a total of $620,215 of which Sedalia contributed $101,190. Over the past five years, ten buildings also have been rehabilitated in Sedalia. To date, these rehabilitations have cost a total of $5.84 million and Sedalia has contributed $25,000.

Sedalia has also sponsored a number of community projects. These projects have cost a total of $3.32 million and Sedalia has contributed $45,000. In total, $9.78 million has been invested in facades, rehabilitations and projects. Sedalia has put forth $171,190 toward these costs through its fund-matching program.

The following chart, exhibit 4.3, indicates the types of projects that Sedalia has invested in over the years and demonstrates the value of such investments.

EXHIBIT 4.3
Main Street Investment in Sedalia, Missouri

	1997-1998*	1999**	2000	Totals
Facade Renovations				
• Number	6	5	1	12
• $ Invested	76,000	78,000	15,000	169,000
Buildings Rehabilitated				
• Number	13	1	1	15
• $ Invested	1,439,000	1,650,000	1,125,000	4,214,000
New Businesses	32	9	6	47
New Jobs	84	53	17	154
Buildings Sold				
• Number	10	4	2	16
• $ Invested	366,000	351,000	45,000	762,000
Public Improvements				
• Number	6	4	5	15
• $ Invested	28,000	215,500	49,500	292,000
Promotions				
• Number	6	4	3	13
• $ Invested	10,000	158,000	5,500	173,500

*July 1997 to June 1998, **January 1 to December 1999.

Sedalia's Preservation Incentive Program

This program is designed to facilitate and assist property owners in restoring their properties to the appropriate and historically accurate representation of the original design intent of the builder.

Maximum funding per project is $5,000 or 50 percent of facade rehabilitation, whichever is the lower amount. Funding is limited to the exterior street-facing facade of the building and does not include interior improvements. The program is not intended to be used for maintenance-related issues. The renovation must be a comprehensive approach to rehabilitation, addressing all exterior elements of a property. The description below "flowcharts" the implementation of the preservation incentive program.

1. *Submittal of plans* prior to work starting. Completed application by building owner.

2. *Committee pre-approval of plans.* The Design Committee must approve all planned renovation on building exterior before work begins.

3. *Project review during renovation.* In most cases the Design Committee will review work in progress and recommend any changes necessary as revealed through project progression. Suggestions or requirements for a proper renovation may be made by the committee at any time during the project. Building owner must submit a corrected application to the committee for any changes.

4. *Request for release of funds.* Submittal by owner at completion of project.
   Must include:
   a. Total amount requested.
   b. Complete documentation of project pre and post renovation. This includes photographic and written documentation.
   c. Written documentation must include related costs, explanation of costs, and total costs.

Main Street Sedalia assists pre-approved projects by providing application assistance, library resources, historical information, photographs, and publications outlining correct procedures for preserving buildings. Many additional resources can be provided through Internet access. Main Street Sedalia can assist with federal and state tax credit applications for a nominal fee. Any disagreement on funding and renovation work may be brought to the attention of the Main Street Sedalia Executive Board of Directors for review and final decision, but is likely to be referred back to the Design Committee.

The Sedalia Community

Downtown Sedalia today is fast becoming a thriving, diverse community, home to both large and small businesses. The downtown has returned to prominence in the community. The city's 1998 neighborhood revitalization application identified concerns regarding vacancy rates, second floor vacancies, economic density and misperceptions of moderate crime in the downtown. Many of the concerns were addressed after the adoption of the Main Street approach in 1996. Sedalia received official recognition as a National Main Street Community in 1998. Positive results through locally unprecedented partnerships with city, state, local and national foundations, federal government and private entities are now being realized.

Through the year 2000, Sedalia experienced business growth and a subsequent downturn in the area's unemployment rate. Today, retail trade in downtown Sedalia represents a strong and vital component of the area's economic base. The retail market contributes 10.8 percent of all personal income within Pettis County. Sedalia has blossomed into a regional market center, serving more than 145,000 residents from within a 45-mile radius with downtown capitalizing on this trend through increased retail, tourism and professional offerings. Another factor helping to round out Sedalia's economy is the growing tourism industry. Sedalia is fast becoming the place for tourist events that focus on cultural and heritage tourism—a natural for its downtown's Commercial Historic District.

Main Street Sedalia has a broad base of public and private sector participation in revitalization efforts, encompassing national, state, and local governmental agencies, corporate and private business, non-profit agencies, and the citizenry. Program support includes:

Local
City of Sedalia
Central Business and Cultural District
Sedalia and Pettis County Development Corporation
Chamber of Commerce
Convention and Visitors Bureau
Sedalia Area Council for the Arts
Sedalia Rotary Club
Jean Faust Tours
Sedalia Business Owners
Sedalia Property Owners
Pettis County Historical Society
State Fair Community College
State Fair Community Service Agency
Union Savings Bank
Missouri State Fair
County Commissioners
Pettis County Community Partnership
Community Transportation Partnership
O.A.T.S.
Retired Seniors Volunteer Program
Liberty Center for the Cultural Arts
Individual Volunteers
Local Churches
Sedalia 200 School District
Area Schools
Public Libraries
Local and Regional Media

State
Department of Economic Development
Neighborhood Assistance Program
Missouri Main Street Program
Department of Natural Resources
State Historic Preservation Office
Missouri Department of Transportation
Multimodal Operations Division

National
Great American Station Foundation
Amtrak
National Trust for Historic Preservation
Union Pacific Railroad
Former Sedalians residents and natives
Various corporate and national foundations

The Main Street Sedalia program offers attractive financial incentive programs, business activity creation, adaptive reuse options to property owners, and strong, targeted promotional events and image improvement for merchants in Sedalia's Central Business and Cultural District. The most dramatic and immediate results are evidenced by the success of the Main Street facade program, a primary focus of the program's design and economic restructuring committees. Façade enhancement is realized by the following programs.

Facade program (in conjunction with Missouri Preservation Tax Credits and Federal Historic Preservation Tax Credits)

- 50/50 match—maximum $5,000 for facade renovation (according to guidelines)

- $171,190 in Main Street Sedalia funding has spurred $9,780,215 in private investment in historic property renovation and new construction through 2001, leveraging $57.13 in reinvestment for every incentive dollar.

- Projects planned for completion beyond 2001 increase this figure to $16 million. (Leverage ratio 1:80 estimated)

Additional Components

- Missouri Pacific Depot Renovation—multimodal transportation facility—Main Street Sedalia project and headquarters, Amtrak lobby, OATS regional office, Habitat for Humanity offices, Sedalia Visual Arts Association gallery and studio. This project is a pilot project (1997) of the Great American Station Foundation. All other pilot grantees were East and West Coast metropolitan areas.

- Katy Depot Project—Chamber of Commerce headquarters and M.K.T. Museum

- Pettis County Jail—a $6 million new construction project retained in downtown area through board member efforts.

Through the Main Street approach of combining promotion, organization, economic restructuring and design elements into a comprehensive approach to downtown revitalization within the context of historic preservation, Main Street Sedalia has seen dramatic improvement in the following areas.

Job creation: a net increase of over 100 jobs has been realized in downtown since 1996, improving the economic density to increase retail activity.

First floor vacancy rates: (based on 216,000 square feet of first floor retail and office space).

1980's:	25-30% [based on merchant estimation mean]
1996:	17% [Inception of Main Street program in Sedalia]
2001:	~ 2%

This success has created interest in second floor utilization and living space, further increasing economic density. Raw data alone from market analysis provided by the Missouri Main Street program has assisted in recruiting compatible businesses, improving existing businesses, and improving the quality of the business mix in downtown.

DATA MAINTAINED BY THE NATIONAL MAIN STREET PROGRAM

Every month, communities participating in a Main Street program are supposed to compile a series of data items (e.g., Project Status Information Sheets and a Reinvestment Summary Sheet) including a "Monthly Report." The Monthly Report is divided into five sections. The first section asks for feedback in the format known as the Main Street Four Point Approach, as designed by the NMSC; the community must report on the month's accomplishments in organization, promotion, quality design, and economic restructuring. The second section asks the community to discuss any "brick walls" (obstacles) that the program has encountered. Section three requests a list of the previous month's completed meetings and the following month's planned meetings. Section four focuses on goals and methodology—what does the community plan to accomplish next month? The last section asks if the community has any questions or needs that it would like addressed by the Main Street Program staff.

The Project Status Information Sheets comprise Project Status, Acquisitions, Business Starts, Business Failures, and Business Rehabilitation sheets. The Project Status sheet displays the proposed, pending, and completed work in the Main Street District. The Acquisitions sheet tracks the buying and selling of buildings. The Business Starts sheet shows new businesses that have opened, as well as the expansion or relocation of existing businesses to the Main Street District. If any business in the Main Street District closes down, it is included in the Business Failures sheet. The Building Rehabilitation sheet records substantial building improvement projects. Since the purpose of these sheets is to track the work and progress of the local program, they are updated frequently. All of the sheets are maintained by the local Main Street Manager.

The Private Sector Reinvestment Summary Sheet, which builds from the Project Status Information Sheets, comprises seven categories, all of which contain cumulative totals reflecting results since the inception of the community's local Main Street Program. Twice a year the figures compiled in the Reinvestment Summary are included in an informational packet which the specific state Main Street Program distributes throughout the state and also submits to NMSC. The categories of data in the Reinvestment Summary are:

A. Rehabilitation
B. New Construction
C. Buildings Sold
D. Total Private Reinvestment
E. Public/Private Joint Ventures
F. Grand Total of Public and Private Sector Reinvestment
G. New Businesses and Jobs

Exhibit 4.4 contains the fields of data assembled in the Reinvestment Summary and details what these fields contain.

EXHIBIT 4.4
Main Street Reinvestment Summary

City: _____ Dates: _____ to _____

Rehabilitation Projects Number of Buildings	**Rehabilitation Projects** Total Expenditures	**New Construction** Number of Buildings	**New Construction** Total Expenditures	**Buildings Sold** Number of Buildings
#1	#2	#3	#4	#5
Buildings Sold Total Expenditures	**Total Private Sector Reinvestment**	**Public/Private Joint Ventures** Number of Projects	**Public/Private Joint Ventures** Total Expenditures	**Grand Total**
#6	#7	#8	#9	#10
Total Business Starts, Relocations, and Expansions	**Net Gain in Business Starts, Relocations, and Expansions**	**Net Gain in Jobs Created**		
#11	#12	#13		

Key to Boxes in Exhibit 4.4

Box #1—the number of buildings that have had rehabilitation work completed since the beginning of the local Main Street program.

Box #2—the dollar ($$) amount that has been spent on the rehabilitation of downtown buildings since the beginning of the local Main Street program.

Box #3—the total number of new buildings built in the Central Business District/Main Street District since the beginning of the local Main Street program.

Box #4—the dollar ($$) amount spent on new construction of buildings in the Central Business District/Main Street District since the beginning of the local Main Street program.

Box #5—the number of buildings sold in the Central Business District/Main Street District since the beginning of the local Main Street program.

Box #6—the dollar ($$) amount spent on purchasing the buildings sold.

Box #7—the total private sector reinvestment figure. This dollar ($$) amount is obtained by adding the dollar ($$) amounts in boxes #2, #4, and #6.

Box #8—the total number of public/private projects, including all streetscapes, public buildings, and facilities in the Central Business District/Main Street District since the beginning of the local Main Street program.

Box #9—the total expenditures of public/private projects.

Box #10—add the total in box #7 ("total private sector projects) to obtain the "Grand Total" reinvestments.

Box #11—the total number of businesses that have opened/expanded in the Central Business District/Main Street District since the beginning of the local Main Street program.

Box #12—the net gain/loss in businesses, relocations, expansions, etc. in the Central Business District/Main Street District since the beginning of the local Main Street program. This figure is obtained by subtracting the total number of businesses failures/lost from the total number of new businesses.

Box #13—the net gain in jobs created in the Central Business District/Main Street District since the beginning of the local Main Street program. This figure is obtained by subtracting the total number of jobs lost through business failures from the total number of jobs created through business opening.

Of the three databases mentioned above—Monthly Report, Project Status, and Reinvestment Summary—the last contains the most complete information for ascertaining the total economic impacts of the Main Street Program, encompassing both direct and multiplier effects.

The reinvestment outcomes for Missouri Main Street are detailed in Exhibit 4.5 and are summarized below. Here and elsewhere the reader should be cautioned that statewide data on the Missouri Main Street Program is far from complete.

EXHIBIT 4.5
Missouri Main Street Program: Cumulative Reinvestment Statistics

	1990-1993		1998	1999
	Buildings	**$ Millions**	**$ Millions**	**$ Millions**
Rehab	302	14.1	3.9	4.8
New Construction	11	4.3	0.9	1.5
Buildings Sold	43	1.1	0.3	0.4
Total Private Reinvestment	**356**	**19.5**	**4.2**	**6.7**
Public/Private Joint Ventures	15	13.6	0.2	0.3
Grand Total Invested	**371**	**33.1**	**4.6**	**7.0**
New Businesses	279		94	100
New Jobs	977		269	300

Source: Missouri Main Street Program

A. *Rehabilitation*—between 1990 and 1993, 302 building were rehabilitated at a cost of $14.1 million. In 1998 and 1999, respectively, $3.9 million and $4.8 million were spent on rehabilitation.

B. *New construction*—between 1990 and 1993, 11 buildings were newly constructed at a cost of $4.3 million. In 1998 and 1999, respectively, $0.9 and $1.5 million were spent on new construction.

C. *Building sales*—between 1990 and 1993, 43 buildings were sold at a total value of $1.1 million. In 1998 and 1999, respectively, the total value of building sales were $0.3 and $0.4 million.

D. *Total private reinvestment*—between 1990 and 1993, total private reinvestment in the Main Street communities occurred in 356 buildings at a value of roughly $19.5 million. In 1998 and 1999, respectively, total private reinvestment was about $4.2 million and $6.7 million.

E. *Public/private joint ventures*—between 1990 and 1993, public/private joint ventures in 15 buildings were worth about $13.6 million. In 1998 and 1999, respectively, joint ventures were valued at $0.2 million and $0.3 million.

F. *Grand total of public-/private-sector reinvestment*—the grand total of all public and private reinvestment in the Missouri Main Street Cities (the sum of total private reinvestment and public/private joint ventures) between 1990 and 1993 was about $33.1 million in 371 buildings. In 1998 and 1999, respectively, the grand totals were 4.6 million and $7.0 million.

G. *New business/jobs*—the total number of business starts, relocations, and expansions between 1990 and 1993, was about 279. During these same years, approximately 977 jobs were created. In 1998, there were about 94 new businesses and 269 new jobs. In 1999, there were about 100 new businesses and 300 new jobs.

DIRECT ECONOMIC IMPACTS OF THE MISSOURI MAIN STREET PROGRAM

The reinvestment results summarized above comprise the *direct* economic impacts of the Missouri Main Street program as of FY1999. We must do two things with these data, however, before we can translate the information into total economic benefits, including multiplier effects. First, we *exclude* the amount reported for buildings sold because this activity does not have a multiplier effect, as do such Main Street investments as building rehabilitation and new construction. A dollar invested in the two construction activities just noted has ripple effects throughout the economy. Building materials are bought by suppliers, suppliers then increase orders from manufacturers, households working at both the suppliers and manufacturers increase their spending for goods and services, and so on. It is just this multitude of transactions, which fuels the ripple or multiplier effects. In contrast, the dollar spent for purchasing a property does not catalyze the rounds of economic transactions that cumulatively generate the multiplier impacts.

If we delete real estate sales from the Missouri Main Street reinvestment accomplishments, that leaves four categories of program-linked accomplishment: rehabilitation, new construction, joint ventures, and net jobs created. As of FY1999, the Missouri Main Street initiative has occasioned $4.8 million in rehabilitation, $1.5 million in new construction, and $0.3 million in joint ventures, for a total cumulative amount of $6.6 million. Additionally, a total of 300 net new jobs have been created.

We must make some further adjustment to avoid double counting. This study previously calculated the average level of historic rehabilitation occurring in Missouri, that is, the renovations taking place in properties on, or eligible for, historic designation. Some of the Missouri Main Street rehabilitation is likely taking place in such designated properties; while we do not know this amount for certain, we estimate this would be 25 percent, that is, that 25 percent of the Missouri Main Street Program–counted rehabilitation is effected in designated or eligible properties. (This is a very gross estimate.) The *net* Main Street

rehabilitation, that is, the amount over and above that tallied in the rehabilitation chapter, is therefore 80 percent of the FY1999 Missouri Main Street rehabilitation, or about $3.6 million ($4.8 million x .75).

We similarly have to adjust the net jobs credited to Main Street since these include employment associated with heritage tourism (e.g., a Missouri heritage traveler visiting a Missouri Main Street area and patronizing a store manned by an employee credited to the Missouri Main Street Program). If we didn't adjust, we would then be double counting. While we do not know the exact overlap between Missouri Main Street jobs and jobs associated with Missouri heritage tourism (the latter counted in Chapter Three), we estimate this overlap at 10 percent. (Again, this is a very gross estimate.) Therefore to avoid double counting, we will credit 90 percent of the Missouri Main Street-generated jobs as net of the tourism-associated employment, or on average 270 jobs annually (300 jobs x .9).

In summary, the net additional annual direct economic gains from the Missouri Main Street Program (using FY1999 figures) include:

$3.6 million of rehabilitation
1.5 million of new construction
0.3 million in public investment
5.4 million

and

270 net jobs (Since the 270 net jobs will contain many part-time retail positions, we count these 270 jobs as 180 full-time equivalent [FTE] positions.)

TOTAL ECONOMIC IMPACTS FROM THE MISSOURI MAIN STREET PROGRAM

The next step is to translate the above-cited direct effects into total economic benefits by applying the PEIM. The total economic impacts of the Missouri Main Street Program investment just noted are summarized below and detailed in Exhibits 4.6 and 4.7. Item 1 of Section II in exhibit 4.6 shows how the average annual Main Street output of $5.6 million translates into direct economic effects nationwide. It creates 265 jobs (technically "job-years"), which produce $5.4 million in labor income and $6.9 million in GDP.

Nationally, the indirect and induced effects of Main Street investment create 239 more jobs, and generate $8.0 million more in income, and $13 million more in GDP in their support. As a consequence, the total economic impact—the national sum of the direct and indirect and induced effects—of Main Street investment is 504 jobs; $13.4 million in income; and $20.0 million in GDP. In other words, the multiplier effects are greater than the direct effects. The national multipliers are near to or substantially greater than 2.0.

According to exhibit 4.8, of the 504 jobs created annually, about 71 percent (359 jobs) are created within the state. Missouri retains nearly all of the jobs (253 of the 265) created directly by state-based Main Street activity. However, the indirect and induced

impacts of Missouri Main Street activity tend to leak out of the state. This finding is not surprising, in light of Missouri being only one state in the national economy.

We can learn other interesting aspects of the impacts of Main Street investment by examining them by detailed industry (see Exhibits 4.7 and 4.9). For example, the largest number of in-state Missouri jobs fostered by Main Street investment is in the retail sector (209 of 359 jobs). In turn, the greatest numbers of retail jobs are in apparel and accessory, eating and drinking establishments, general merchandise, and miscellaneous retail stores with 62 and 53 jobs respectively.

In summary, the economic impacts estimated through the PEIM models of the Missouri and the U.S. economies reveal that the annual Main Street activity in Missouri generates modest employment and attendant income and production benefits.

EXHIBIT 4.6
National Economic and Tax Impacts of Annual
Missouri Main Street Activity ($5.4 Million+ 180 service jobs)

	Economic Component		
	Employment (jobs)	**Income (000$)**	**Gross Domestic Product (000$)**
I. TOTAL EFFECTS (Direct and Indirect/Induced)*			
Private			
1. Agriculture	5	68	286
2. Agri. Serv., Forestry, & Fish	3	69	77
3. Mining	3	90	331
4. Construction	72	2,357	2,742
5. Manufacturing	62	2,116	3,417
6. Transport. & Public Utilities	20	770	1,658
7. Wholesale	14	662	971
8. Retail Trade	228	3,601	4,789
9. Finance, Ins., & Real Estate	32	1,727	3,109
10. Services	64	1,815	2,460
Private Subtotal	501	13,274	19,840
Public			
11. Government	3	122	117
Total Effects (Private and Public)	504	13,396	19,957
II. DISTRIBUTION OF EFFECTS/MULTIPLIER			
1. Direct Effects	265	5,434	6,879
2. Indirect and Induced Effects	239	7,963	13,078
3. Total Effects	504	13,396	19,957
4. Multipliers (3/1)	1.90	2.47	2.90
III. COMPOSITION OF GROSS STATE PRODUCT			
1. Wages—Net of Taxes			11,758
2. Taxes			
a. Local/State			2,398
b. Federal			
General			1,348
Insurance Trusts			1,009
Federal Subtotal			2,357
c. Total taxes (2a+2b)			4,755
3. Profits, dividends, rents, and other			3,444
4. Total Gross State Product (1+2+3)			19,957
EFFECTS PER MILLION DOLLARS OF INITIAL EXPENDITURE			
Employment (Jobs)			46.7
Income			1,240,373
Local/State Taxes			222,048
Gross State Product			1,847,873

Note: Detail may not sum to totals due to rounding.

*Terms:

Direct Effect (State)—the proportion of direct spending on goods and services produced.

Indirect Effects—the value of goods and services needed to support the provision of those direct economic effects.

Induced Effects—the value of goods and services needed by households that provide the direct and indirect labor.

EXHIBIT 4.7
National Economic Impacts (Industry Detail) of Annual Missouri Main Street Activity ($5.4 Million+ 180 service jobs)

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Agriculture	**5**	**68**	**286**
Dairy Farm Products	1	12	54
Eggs	0	0	1
Meat Animals	1	18	89
Misc. Livestock	0	1	2
Wool	0	0	0
Cotton	0	2	7
Tobacco	0	0	1
Grains & Misc. Crops	0	2	8
Feed Crops	1	9	41
Fruits & Nuts	1	10	40
Vegetables	0	4	11
Greenhouse & Nursery Products	0	3	13
Sugar Beets & Cane	0	1	3
Flaxseed, Peanuts, Soybean, Sunflower	0	5	15
Agri. Serv., Forestry, & Fish	**3**	**69**	**77**
Agri. Services (07)	3	62	58
Forestry (08)	0	5	15
Fishing, Hunting, & Trapping (09)	0	1	4
Mining	**3**	**90**	**331**
Coal Mining (12)	1	19	46
Oil & Gas Extraction (13)	1	34	206
Nonmetal Min.-Ex. Fuels (14)	1	32	66
Metal Mining (10)	0	6	12
Construction	**72**	**2,357**	**2,742**
General Bldg. Contractors (15)	40	1,258	1,452
Heavy Const. Contractors (16)	13	434	492
Special Trade Contractors (17)	20	666	797
Manufacturing	**62**	**2,116**	**3,417**
Chemicals & Allied Prod. (28)	3	158	327
Petroleum & Coal Prod. (29)	4	125	309
Rubber & Misc. Plastics (30)	2	70	95
Leather & Leather Prod. (31)	0	11	18
Stone, Clay, & Glass (32)	6	191	263
Primary Metal Prod. (33)	4	167	242
Fabricated Metal Prod. (34)	9	285	450
Machinery, Except Elec. (35)	4	150	190
Electric & Elec. Equip. (36)	5	173	308
Transportation Equipment (37)	2	104	162
Instruments & Rel. Prod. (38)	1	39	44
Misc. Manufacturing Ind's. (39)	1	33	57
Food & Kindred Prod. (20)	5	169	309
Tobacco Manufactures (21)	0	4	11
Textile Mill Prod. (22)	3	63	83
Apparel & Other Prod. (23)	2	51	66
Limber & Wood Prod. (24)	3	84	134
Furniture & Fixtures (25)	1	26	36
Paper & Allied Prod. (26)	2	84	133
Printing & Publishing (27)	4	129	178

EXHIBIT 4.7 (continued)
National Economic Impacts (Industry Detail) of Annual Missouri Main Street Activity ($5.4 Million+ 180 service jobs)

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Transport. & Public Utilities	**20**	**770**	**1,658**
Railroad Transportation (40)	1	26	70
Local Pass. Transit (41)	2	26	39
Trucking & Warehousing (42)	7	256	288
Water Transportation (44)	1	20	32
Transportation by Air (45)	2	53	89
Pipe Lines-Ex. Nat. Gas (46)	0	4	16
Transportation Services (47)	1	25	39
Communication (48)	4	187	454
Elec., Gas, & Sanitary Serv. (49)	4	174	633
Wholesale	**14**	**662**	**971**
Wholesale-Durable Goods (50)	7	423	550
Wholesale-Nondurable Goods (51)	6	239	421
Retail Trade	**228**	**3,601**	**4,789**
Bldg. Mat.-Garden Supply (52)	2	48	71
General Merch. Stores (53)	38	956	797
Food Stores (54)	48	857	1,129
Auto. Dealers-Serv. Stat. (55)	5	134	219
Apparel & Access. Stores (56)	64	817	1,145
Furniture & Home Furnish. (57)	1	44	44
Eating & Drinking Places (58)	62	578	1,156
Miscellaneous Retail (59)	7	169	228
Finance, Ins., & Real Estate	**32**	**1,727**	**3,109**
Banking (60)	4	127	398
Nondep. Credit Institut. (61)	8	501	531
Security, Comm. Brokers (62)	3	137	248
Insurance Carriers (63)	5	262	376
Ins. Agents, Brokers (64)	5	181	252
Real Estate (65)	2	124	893
Holding and Invest. Off. (67)	4	396	411
Services	**64**	**1,815**	**2,460**
Hotels & Other Lodging (70)	4	83	123
Personal Services (72)	6	139	160
Business Services (73)	20	519	771
Auto Repair, Serv., Garages (75)	3	58	134
Misc. Repair Services (76)	1	49	72
Motion Pictures (78)	3	77	97
Amusement & Recreation (79)	3	84	106
Health Services (80)	4	119	147
Legal Services (81)	2	103	157
Educational Services (82)	3	61	65
Social Services (83)	2	34	35
Museums, Gardens & Mem. Orgs. (84, 86)	5	129	133
Engineer. & Manage. Serv. (87)	5	258	323
Private Households (88)	0	0	0
Miscellaneous Services (89)	2	104	138
Government	**3**	**122**	**117**
Total	**504**	**13,396**	**19,957**

Note: Detail may not sum to totals due to rounding.

EXHIBIT 4.8
In-State Economic and Tax Impacts of Annual
Missouri Main Street Activity ($5.4 Million+ 180 service jobs)

	Economic Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
I. TOTAL EFFECTS (Direct and Indirect/Induced)*			
Private			
1. Agriculture	1	5	22
2. Agri. Serv., Forestry, & Fish	1	21	20
3. Mining	1	18	38
4. Construction	61	2,064	2,393
5. Manufacturing	20	576	934
6. Transport. & Public Utilities	8	287	611
7. Wholesale	5	226	332
8. Retail Trade	209	3,197	4,198
9. Finance, Ins., & Real Estate	18	837	1,415
10. Services	33	827	1,107
Private Subtotal	357	8,058	11,069
Public			
11. Government	2	53	50
Total Effects (Private and Public)	359	8,112	11,119
II. DISTRIBUTION OF EFFECTS/MULTIPLIER			
1. Direct Effects	253	5,116	6,472
2. Indirect and Induced Effects	106	2,995	4,648
3. Total Effects	359	8,112	11,119
4. Multipliers (3/1)	1.42	1.59	1.72
III. COMPOSITION OF GROSS STATE PRODUCT			
1. Wages—Net of Taxes			6,918
2. Taxes			
a. Local/State			1,491
b. Federal			
General			789
Insurance Trusts			593
Federal Subtotal			1,382
c. Total taxes (2a+2b)			2,873
3. Profits, dividends, rents, and other			1,329
4. Total Gross State Product (1+2+3)			11,119
EFFECTS PER MILLION DOLLARS OF INITIAL EXPENDITURE			
Employment (Jobs)			33.2
Income			751,080
Local/State Taxes			138,035
Gross State Product			1,029,583

Note: Detail may not sum to totals due to rounding.

*Terms:

Direct Effect (State)—the proportion of direct spending on goods and services produced.
Indirect Effects-—he value of goods and services needed to support the provision of those direct economic effects.
Induced Effects—the value of goods and services needed by households that provide the direct and indirect labor.

EXHIBIT 4.9
In-State Economic Impacts (Industry Detail) of Annual
Missouri Main Street Activity ($5.4 Million+ 180 service jobs)

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Agriculture	**1**	**5**	**22**
Dairy Farm Products	0	0	0
Eggs	0	0	0
Meat Animals	0	3	14
Misc. Livestock	0	0	0
Wool	0	0	0
Cotton	0	0	0
Tobacco	0	0	0
Grains & Misc. Crops	0	0	1
Feed Crops	0	1	3
Fruits & Nuts	0	0	1
Vegetables	0	0	0
Greenhouse & Nursery Products	0	0	2
Sugar Beets & Cane	0	0	0
Flaxseed, Peanuts, Soybean, Sunflower	0	0	1
Agri. Serv., Forestry, & Fish	**1**	**21**	**20**
Agri. Services (07)	1	21	19
Forestry (08)	0	0	0
Fishing, Hunting, & Trapping (09)	0	0	0
Mining	**1**	**18**	**38**
Coal Mining (12)	0	0	0
Oil & Gas Extraction (13)	0	0	1
Nonmetal Min.-Ex. Fuels (14)	1	18	38
Metal Mining (10)	0	0	0
Construction	**61**	**2,064**	**2,393**
General Bldg. Contractors (15)	36	1,150	1,327
Heavy Const. Contractors (16)	11	397	451
Special Trade Contractors (17)	14	517	615
Manufacturing	**20**	**576**	**934**
Chemicals & Allied Prod. (28)	0	19	39
Petroleum & Coal Prod. (29)	3	76	178
Rubber & Misc. Plastics (30)	0	4	6
Leather & Leather Prod. (31)	0	1	2
Stone, Clay, & Glass (32)	5	131	178
Primary Metal Prod. (33)	0	17	25
Fabricated Metal Prod. (34)	4	116	183
Machinery, Except Elec. (35)	1	34	44
Electric & Elec. Equip. (36)	1	17	31
Transportation Equipment (37)	0	19	29
Instruments & Rel. Prod. (38)	0	6	7
Misc. Manufacturing Ind's. (39)	0	3	6
Food & Kindred Prod. (20)	1	38	70
Tobacco Manufactures (21)	0	0	0
Textile Mill Prod. (22)	0	0	0
Apparel & Other Prod. (23)	1	8	11
Limber & Wood Prod. (24)	1	30	48
Furniture & Fixtures (25)	0	7	10
Paper & Allied Prod. (26)	0	9	14
Printing & Publishing (27)	1	38	53

EXHIBIT 4.9 (continued)
In-State Economic Impacts (Industry Detail) of Annual Missouri Main Street Activity ($5.4 Million+ 180 service jobs)

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Transport. & Public Utilities	**8**	**287**	**611**
Railroad Transportation (40)	0	7	19
Local Pass. Transit (41)	1	12	18
Trucking & Warehousing (42)	3	104	117
Water Transportation (44)	0	3	5
Transportation by Air (45)	0	16	26
Pipe Lines-Ex. Nat. Gas (46)	0	0	1
Transportation Services (47)	0	6	10
Communication (48)	2	76	185
Elec., Gas, & Sanitary Serv. (49)	1	63	229
Wholesale	**5**	**226**	**332**
Wholesale-Durable Goods (50)	3	143	185
Wholesale-Nondurable Goods (51)	3	83	147
Retail Trade	**209**	**3,197**	**4,198**
Bldg. Mat.-Garden Supply (52)	1	28	43
General Merch. Stores (53)	37	895	746
Food Stores (54)	46	809	1,066
Auto. Dealers-Serv. Stat. (55)	4	77	126
Apparel & Access. Stores (56)	62	789	1,106
Furniture & Home Furnish. (57)	1	25	25
Eating & Drinking Places (58)	53	478	955
Miscellaneous Retail (59)	4	97	131
Finance, Ins., & Real Estate	**18**	**837**	**1,415**
Banking (60)	2	64	200
Nondep. Credit Institut. (61)	5	273	289
Security, Comm. Brokers (62)	1	57	102
Insurance Carriers (63)	3	119	172
Ins. Agents, Brokers (64)	3	85	119
Real Estate (65)	1	46	333
Holding and Invest. Off. (67)	3	193	200
Services	**33**	**827**	**1,107**
Hotels & Other Lodging (70)	1	13	19
Personal Services (72)	4	76	88
Business Services (73)	11	257	382
Auto Repair, Serv., Garages (75)	1	22	51
Misc. Repair Services (76)	0	13	19
Motion Pictures (78)	1	18	23
Amusement & Recreation (79)	1	28	36
Health Services (80)	3	63	78
Legal Services (81)	1	37	56
Educational Services (82)	1	28	30
Social Services (83)	1	18	19
Museums, Gardens & Mem. Orgs. (84, 86)	3	66	68
Engineer. & Manage. Serv. (87)	3	143	181
Private Households (88)	0	0	0
Miscellaneous Services (89)	1	43	57
Government	**2**	**53**	**50**
Total	**359**	**8,112**	**11,119**

Note: Detail may not sum to totals due to rounding.

CHAPTER FIVE

Profile of, and Economic Impacts from, the Missouri Historic Preservation Tax Credit Program

INTRODUCTION AND SUMMARY

This chapter examines the profile and economic impact of the Missouri Historic Preservation Tax Credit (MHPTC) that went into effect January 1, 1998. The MHPTC is an innovative state strategy that offers a 25 percent state tax credit of the costs of qualified Missouri historic preservation projects.

Profile of the MHPTC

Investment and Tax Credits

- As of August 2001, almost $295 million ($294,301,643) of historic rehabilitation had cumulatively been effected under MHPTC auspices (exhibit 5.1).
- A 25 percent state tax credit amounting to about $74 million ($73,614,423) encouraged the MHPTC investment.

General Pattern of MHPTC Project Locations

- Completed MHPTC projects are concentrated in the City of St. Louis and to a lesser extent Kansas City, Lexington, and Jefferson City. Over time, there may be even more dispersal as additional Missouri communities and property owners become familiar with the MHPTC.
- Projects outside of these cities are located in 20 other towns, dispersed throughout the state.
- MHPTC projects are concentrated in areas with higher population densities, significant minority presence, and lower household incomes.
- MHPTC recipient areas tend to have an older housing stock, higher vacancy rates, and lower owner occupancy than the state of Missouri as a whole. Many MHPTC locations are classified by the Missouri Department of Economic Development as "distressed." Credit-inspired historic preservation investment in these areas is thus quite welcome.

Economic Impacts of the MHPTC

The MHPTC has economic effects from both the historic rehabilitation (i.e., construction) it engenders and from the historic tourism it supports (i.e., renovating Missouri's historic resources fosters visitation from history-oriented tourists).

MHPTC Historic Rehabilitation Economic Impacts (exhibit 5.2)

- The total national economic impacts from the $295 million cumulative MHPTC historic rehabilitation investment included the following: 11,789 person-years of work; $391 million in income; $578 million in gross domestic product; and $122 million in taxes. From the cumulative MHPTC historic rehabilitation, the state of Missouri garnered 6,871 person-years of work; $212 million in income; $283 million in gross state product; $60 million in total taxes (including $25 million in Missouri state and local taxes); and $249 million in in-state wealth.

EXHIBIT 5.1
Missouri Historic Preservation Tax Credit (MHPTC) Activity 1998–2001
(as of August 2001)

Project Number	Property City	Project Costs	Tax Credit
1998			
981-002	Jefferson City	$98,603.68	$ 24,650.92
981-003	Jefferson City	$345,581.34	$ 86,395.34
1998 Total		$444,185.02	$ 111,046.26
1999			
981-021	Excelsior Springs	$9,541,552.51	$ 2,385,388.13
992-046	Kansas City	$44,400.82	$ 11,100.21
981-011	St. Louis	$343,671.00	$ 85,917.75
981-030	St. Louis	$54,873.80	$ 13,718.45
981-044	St. Louis	$75,066.22	$ 18,766.56
992-054	Fulton	$17,268.89	$ 4,317.22
981-029	St. Louis	$99,442.16	$ 24,860.54
992-055	Sedalia	$294,898.07	$ 73,724.52
992-079	St. Louis	$85,026.09	$ 21,256.52
981-004	St. Louis	$5,541,643.66	$ 1,385,410.92
981-001	Kansas City	$2,729,297.00	$ 682,324.25
981-008	Kansas City	$5,901,137.00	$ 1,475,284.25
981-006	N. Kansas City	$11,418,515.08	$ 2,854,628.77
981-005	St. Louis	$1,226,534.00	$ 306,633.50
992-058	St. Louis	$2,747,626.60	$ 686,906.65
992-077	St. Louis	$82,465.26	$ 20,616.32
992-080	University City	$76,888.16	$ 19,222.04
992-078	Edina	$4,547.86	$ 1,136.97
992-063	St. Louis	$57,217.98	$ 14,304.50
992-092	Kansas City	$4,419,153.66	$ 1,104,788.42
992-069	Lexington	$92,704.54	$ 23,176.14
992-073	Springfield	$66,355.46	$ 16,588.87
992-070	Springfield	$205,364.89	$ 51,341.22
981-010	St. Louis	$131,525.56	$ 32,881.39
992-062	Chesterfield	$355,602.16	$ 88,900.54
981-041	St. Louis	$285,029.91	$ 71,257.48
981-023	St. Charles	$196,842.39	$ 49,210.60
1999 Total		$46,094,650.73	$11,523,662.68
2000			
001-114	St. Louis	$434,842.00	$ 108,710.50
992-065	Lexington	$131,276.12	$ 32,819.03
002-138	St. Louis	$75,447.66	$ 18,861.92
002-130	Kansas City	$4,590,833.77	$ 1,147,708.44
992-089	University City	$101,000.72	$ 25,250.18
981-024	Kansas City	$3,470,706.41	$ 867,676.60
981-035	St. Louis	$235,565.16	$ 58,891.29
002-151	Sedalia	$1,099,855.78	$ 274,963.95
981-018	St. Louis	$922,976.01	$ 230,744.00

EXHIBIT 5.1 (continued)

Project Number	Property City	Project Costs	Tax Credit
2000 con't			
001-117	Kansas City	$5,304,820.00	$ 1,326,205.00
981-038	St. Louis	$52,978,830.00	$13,244,707.50
992-066	Jefferson City	$289,947.34	$ 72,486.84
002-126	Danville	$124,897.99	$ 31,224.50
981-012	St. Joseph	$45,742.31	$ 11,435.58
981-040	St. Louis	$304,846.00	$ 76,211.50
002-119	St. Louis	$430,805.00	$ 107,701.25
981-034	St. Louis	$4,643,726.00	$ 1,160,931.50
004-211	University City	$375,062.58	$ 93,765.65
981-037	St. Louis	$143,276.00	$ 35,819.00
001-116	St. Louis	$376,969.00	$ 94,242.25
992-056	Jefferson City	$248,095.20	$ 62,023.80
981-007	St. Louis	$577,826.87	$ 144,456.72
981-017	St. Louis	$140,731.31	$ 35,182.83
001-103	St. Louis	$3,527.78	$ 881.95
981-042	St. Louis	$352,056.04	$ 88,014.01
981-043	St. Louis	$263,004.19	$ 65,751.05
004-219	St. Louis	$309,956.52	$ 77,489.13
981-025	Jefferson City	$14,346,735.00	$ 3,586,683.75
001-110	Osceola	$2,050,228.03	$ 512,557.01
003-168	St. Louis	$487,570.54	$ 121,892.64
992-047	St. Louis	$135,764.43	$ 33,941.11
992-071	St. Louis	$131,500.00	$ 32,875.00
992-051	St. Louis	$4,155,935.67	$ 1,038,983.92
992-076	St. Louis	$154,123.00	$ 38,530.75
004-239	Springfield	$51,657.32	$ 12,914.33
002-121	Kansas City	$166,795.00	$ 41,698.75
992-093	St. Louis	$264,535.00	$ 66,133.75
992-059A	St Louis	$1,390,749.04	$ 347,687.26
992-059	St. Louis	$7,384,302.03	$ 1,846,075.51
992-072	St. Louis	$104,512.39	$ 26,128.10
002-136	St. Louis	$163,338.31	$ 40,834.58
992-095	St. Louis	$122,997.96	$ 30,749.49
002-132	Kansas City	$10,030,121.00	$ 2,507,530.25
992-050	St. Louis	$25,528,834.64	$ 6,382,208.66
2000 Total		$144,646,323.12	$36,161,580.78
2001			
003-176	St. Louis		$ 39,332.24
002-131	Kansas City	$6,043,239.00	$ 1,510,809.75
002-133	Lexington	$134,849.74	$ 33,392.69
003-177	St. Louis	$162,623.50	$ 40,655.88
004-208	Kansas City	$106,156.15	$ 26,539.04
012-285	St. Louis	$5,051,008.62	$ 1,262,752.16
981-026	Warrensburg	$273,891.79	$ 68,472.95
004-217	St. Louis	$126,689.01	$ 31,672.25
012-256	West Plains	$63,567.02	$ 15,891.76

EXHIBIT 5.1 (continued)

Project Number	Property City	Project Costs	Tax Credit
2001 con't			
992-088	St. Louis	$151,769.44	$ 37,942.36
012-268	Boonville	$20,751.10	$ 5,187.78
002-157	Kansas City	$5,257,792.00	$ 1,314,448.00
003-180	St. Louis	$2,180,684.04	$ 545,171.01
012-257	St. Louis	$139,692.21	$ 34,923.05
002-123	St. Joseph	$113,257.50	$ 28,314.38
003-170	St. Louis	$211,260.23	$ 52,815.06
003-181	Chesterfield	$255,081.64	$ 63,770.41
004-216	St. Louis	$153,167.33	$ 38,291.83
001-104	Kansas City	$4,204,964.00	$ 1,051,241.00
001-105	Kansas City	$10,046,073.00	$ 2,511,518.25
002-127	St. Louis	$321,535.82	$ 80,383.96
012-301	St. Louis	$171,502.57	$ 42,875.64
981-022	Liberty	$194,379.86	$ 48,594.97
992-090	St. Louis	$4,743,244.86	$ 1,185,811.22
992-097	Clarksville	$242,026.87	$ 60,506.72
001-107	St. Louis	$201,156.31	$ 50,289.08
003-197	Springfield	$260,644.25	$ 65,161.06
012-264	St. Louis	$72,779.27	$ 18,194.82
002-159	St. Louis	$1,285,774.33	$ 321,443.58
013-335	Fulton	$368,780.15	$ 92,195.04
002-128	St. Louis	$283,083.81	$ 70,770.95
013-359	St. Louis	$124,059.27	$ 31,014.82
001-108	St. Louis	$52,616.14	$ 13,154.04
002-120	St. Louis	$292,221.80	$ 73,055.45
013-334	St. Louis	$82,295.18	$ 20,573.80
981-016	Hannibal	$1,302,005.27	$ 325,501.32
012-255	St. Louis	$117,933.00	$ 29,483.25
992-049	St. Louis	$51,990,341.58	$12,997,585.40
003-173	St. Louis	$428,085.68	$ 107,021.42
003-174	St. Louis	$301,767.17	$ 75,441.79
003-175	St. Louis	$392,001.78	$ 98,000.45
004-232	Independence	$229,572.42	$ 57,393.11
011-245	St. Louis	$141,549.51	$ 35,387.38
014-380	Webster Groves	$169,277.67	$ 42,319.42
012-288	St. Louis	$313,151.58	$ 78,287.90
004-223	St. Louis	$334,270.00	$ 83,567.50
012-291	Lexington	$215,273.53	$ 53,818.38
012-292	Lexington	$116,571.98	$ 29,143.00
002-140	Kansas City	$3,672,065.00	$ 918,016.25
2001 Total (to date)		$103,116,483.98	$25,818,133.48
All Years		$294,301.642.85	$73,614,423.20

EXHIBIT 5.2
Total Economic Impacts of the Cumulative
MHRTC-Supported Historic Rehabilitation ($295 million)

	In Missouri	Outside Missouri	Total (U.S.)
Jobs (person-years of work)	6,871	4,918	11,789
Income ($million)	212	179	391
GDP/GSP ($million)	283	295	578
Total taxes	59	63	122
Federal ($million)	34	33	67
State/Local ($million)	25	30	55
In-State Wealth (GSP Minus Federal Taxes)	249	—	—

Note: GDP/GSP = Gross Domestic Product/Gross State Product

- The economic benefits from the MHPTC-supported historic rehabilitation are enjoyed throughout the Missouri economy. For instance, of the $283 million in gross state product, the construction, services and manufacturing sectors of the Missouri economy gained $116 million, $47 million, and $34 million, respectively.

MHPTC-Supported Historic Tourism Economic Impacts

In addition to the above construction-driven consequences, the MHPTC historic tourism support will realize the following benefits. National (over 20 years) impacts include: 4,018 person-years of work; $103 million in income; $181 million in GDP; and $43 million in taxes. State of Missouri historic tourism gains from the MHPTC include: 3,407 person-years of work; $55 million in income; $97 million in gross state product; and $25 million in taxes (including $13 million in state–local taxes).

EXHIBIT 5.3
Total Economic Impacts of the Cumulative
MHPTC-Supported Heritage Tourism ($112 million)

	In Missouri	Outside Missouri	Total (U.S.)
Jobs (person-years of work)	3,407	611	4,018
Income ($millions)	55	48	103
GDP/GSP ($millions)	97	84	181
Total taxes ($millions)	25	18	43
Federal ($millions)	12	9	21
State/Local ($millions)	13	9	22
In-State Wealth ($millions)	85	—	—

Note: GDP/GSP = Gross Domestic Product/Gross State Product.

- The *total* economic impact from the MHPTC, including *both* the rehabilitation and tourism benefits, are shown in exhibit 5.4. There are benefits to both the nation and state. Missouri garners: 10,278 jobs; $267 million in income; $381 million in gross state product; $85 million in taxes (including $39 million in state/local taxes); and $335 million in in-state wealth. These effects are felt throughout the Missouri economy.

- The MHPTC is thus an economic pump primer to the state of Missouri with respect to the jobs, income, and wealth ensuing from its historic rehabilitation and tourism effects.

- The economic and tax gains from the historic rehabilitation and heritage travel supported by the MHPTC offset much, if not all, of the $74 million of the state cost of the program.

EXHIBIT 5.4
Total Economic Impacts of the Cumulative MHPTC-Supported Heritage Tourism

	In Missouri	Outside Missouri	Total (U.S.)
Jobs (person years)	10,278	5,354	15,632
Income (million)	$267	$247	$494
GDP/GSP (million)	$381	$379	$760
Total Taxes (million)	$85	$81	$166
Federal (million)	$46	$42	$88
State–Local (million)	$39	$49	$78
In-State Wealth (million) (GSP Minus Federal Taxes)	$335	—	—

Note: GDP/GSP = Gross Domestic Product/Gross State Product

INTRODUCTION TO THE CHAPTER

This chapter considers the profile of economic impacts of the Missouri Historic Preservation Tax Credit (MHPTC). Part I presents background to the MHRTC, Part II overview the MHRTC, Part III describes the profile of MHRTC activity to date, Part IV and V concludes with the MHPTC's economic impacts.

PART I. BACKGROUND TO THE MISSOURI HISTORIC PRESERVATION TAX CREDIT

Federal Predecessor Investment Tax Credit

Until 1976, the tax code in the United States favored new construction. The fastest depreciation schedule—a 200 percent declining balance (DB) write-off[1]—was available only for new construction, whereas existing buildings were limited to a 125 percent DB schedule. The 1976

[1]This tax write-off schedule is at twice the straight-line depreciation on the declining balance being depreciated.

Tax Act introduced some historic preservation–supportive measures, such as counting preservation easements as charitable donations. Much more significant was the Economic Recovery Tax Act (ERTA) of 1981. ERTA introduced a three-tier investment tax credit (ITC). A 15 percent ITC was allowed for the rehabilitation of nonresidential income-producing properties at least 30 years old; a 20 percent ITC could be taken for the renovation of the income-producing nonresidential property at least 40 years old; and a 25 percent ITC was available for the rehabilitation of historic, income-producing properties, both residential and nonresidential. These ITCs could be applied against wage and investment income, and syndications to affluent investors were commonplace. For example, a $1 million rehabilitation of an historic apartment building would qualify for a $250,000 ITC, which investors could deduct dollar for dollar against their federal income tax liability according to their pro rata ownership of the historic renovation project.

The 1981 historic preservation ITC was a powerful lure. Historic rehabilitation tax credit (HRTC) investment grew from $738 million in FY1981 to $1.128 billion in FY1982 to $2.165 billion in FY1983 and a high of $2.416 billion by FY1985. There was a spectacular increase in the number of HRTC projects as well.

The 1986 Tax Reform Act (TRA) dramatically changed the ITC's provisions. Instead of a 15 to 20 percent ITC for income-producing nonresidential properties 30 to 40 years old, respectively, now only a 10 percent ITC was permitted and the building had to have been built prior to 1936. In addition, the 25 percent ITC for historic rehabilitation was reduced to a 20 percent credit. To qualify for the 20 percent historic ITC, the income-producing rehabilitated property had to be a "certified historic structure" (i.e., a building individually listed on the National Register, or located in, and contributing to, the historic significance of a registered historic district[2]); the rehabilitation had to be "substantial" (i.e., more than $5,000, or the adjusted basis of the renovated property, whichever was greater); and finally, the rehabilitation had to be certified (i.e., had to be consistent with the historic character of the building/district—with the Secretary of the Interior's Standards for Rehabilitation to be used as a guide). These same three provisions had been in place under the 1981 ERTA historic rehabilitation ITC; however, the TRA capped the ITC at 20 percent, and most significantly, the tax code now severely restricted the ability to apply the ITC against earned income. Investment in real estate limited partnerships was classified by the 1986 Tax Reform Act as "passive income," and under the 1986 "passive activity loss limitation," the passive ITC could generally not be applied against "nonpassive" income (i.e., wages, interest, and dividends). Yet it was precisely the ability to apply the ITC against wages, interest, and dividends that prompted wealthy individuals to invest in a historic rehabilitation limited partnership.

The results of the 1986 Tax Reform Act changes caused investment to plummet. From a high of 3,117 projects with an aggregate $2.416 billion investment in FY1985, HRTC activity dropped to a low of 538 projects with an aggregate $547 million investment in FY1993. It has subsequently rebounded, somewhat in part due to generally reinvigorated real estate investment,

[2]Local districts may also qualify if these districts and their enabling statutes are certified by the Secretary of the Interior.

to 902 projects totaling $688 million in FY 1997, but is still below ERTA-era levels.[3] (The estimated HRTC investment[4] in FY1997 was $1.728 billion.)

State Investment Tax Credits in the United States

Even before the 1986 Tax Reform Act, numerous states had enacted state investment tax credits of their own. After all, if the federal tax credits were successful, why not replicate the same model at the state level. With the changes wrought by the 1986 Reform Act which reduced the benefits of the federal tax credits, even more states stepped into the breach and adopted investment tax credits of their own to encourage rehabilitation especially historic renovation. A selected listing of states with such programs include Colorado, Indiana, Maryland, New Mexico, Rhode Island, Utah, Virginia, West Virginia, and Wisconsin. The specific state provisions vary. For example, they offer from a 10 to 50 investment tax credit and have varying required investment amounts, property eligibility, and other characteristics. Missouri thus joined many sister states in adopting an investment tax credit for historic rehab.

PART II. MISSOURI HISTORIC PRESERVATION TAX CREDIT PROGRAM: BACKGROUND

History of the Program

With the intent to create incentives for historic preservation and rehabilitation activities, the Missouri General Assembly passed Senate Bill 1 in September of 1997. Pursuant to this bill, the Historic Preservation Tax Credit Program was put into effect on January 1, 1998. [5]

Program Description

The program allows Missouri taxpayers (except not for profit entities[6]) a state tax credit for costs associated with the rehabilitation of certified historic structures located in Missouri. Unlike the federal tax credit program, the site may be a personal residence as well as an income-producing property.[7] The credit amounts to 25 percent of the total cost of rehabilitation projects undertaken after January 1, 1998.[8] It only applies to substantial projects that cost the taxpayer more than 50 percent of the taxpayer's basis in the subject property.[9] Furthermore, the tax is only applicable to a rehabilitation project which conforms to the historic rehabilitation standards issued by the

[3]Unless otherwise noted, dollar figures indicated in the paragraph are "certified investment," which represents the amount actually spent on qualifying costs associated with the HRTC rehabilitation as indicated on the Part 3 HRTC application.
[4]Private-sector investment is estimated on the Part 2 HRTC application. While work is supposed to be completed in a timely fashion, projects can be delayed for financing and other reasons. Thus, estimated investment cannot be relied upon for actual costs in any given year (U.S. Department of the Interior, National Park Service 1997b, 6).
[5]Mo. Rev. Stat. §§ 253.545-253.561.
[6]Mo. Rev. Stat. § 253.557.
[7]Mo. Rev. Stat. § 253.545. See Missouri Department of Economic Development. 1999. *Federal and Missouri State Investment Tax Credits for Certified Rehabilitation of Historic Buildings-A Comparison.*
[8]Mo. Rev. Stat. § 253.550.
[9]Id.

Secretary of the United States Department of the Interior as determined by the Missouri Department of Natural Resources State Historic Preservation Office (SHPO).[10]

The program is administered by the Missouri Department of Economic Development (DED) in cooperation with the SHPO. The DED issues the tax credits based upon certification by the SHPO.

Application Process

Certification occurs in two stages.[11] In the initial stage, Form 1 is submitted to the DED for preliminary project approval. Effective January 1, 1999, applicants do not receive credits for expenses incurred before Form 1 is received by the DED.[12] The DED notifies applicants of the date of receipt after which credits may apply for eligible expenses. The DED forwards the application to the SHPO for technical review and certification. At the end of this stage (which takes about 30 days), the DED returns a "Certification of Preliminary Approval" form to applicants of eligible projects.[13]

As described above, eligibility requires that the applicant property is a certified historic structure. It must be located in Missouri and listed individually on the National Register of Historic Places or be a contributing building in a National Register District or a certified historic district. Reviewing Form 1, the SHPO also certifies that the expected cost of the project meets the statutory minimum and that the work will conform to rehabilitation standards.[14]

The second stage of approval occurs when the project is complete and the applicant submits Form 2 to the DED. This form must be submitted within 60 days of project completion. Again the DED forwards this form to the SHPO for review and certification. Form 2 includes an itemized list or certified letter of expenditures. For projects exceeding $500,000, an independent accountant completes the list of expenditures.[15]

After final approval from the SHPO, the DED sends the "Certification of Final Rehabilitation" form to the applicant.[16] This completes the approval process and credits are issued accordingly. If the amount of such credits exceeds the applicant's tax liability for the year that the rehabilitated property is put back in service, the taxpayer may carry the excess amount backward three years and forward ten years.[17] The taxpayer must attach the final certification to all Missouri income tax returns on which the credit is claimed.

[10]Id.
[11]Mo. Rev. Stat. § 253.559.
[12]See the Missouri Department of Economic Development Historic Preservation Tax Credit Program Guidelines, (http://www.ecodevo.state.mo.us/cd/htpc.html).
[13]Id.
[14]Mo. Rev. Stat. § 253.550.
[15]See the Missouri Department of Economic Development Historic Preservation Tax Credit Program Guidelines, (http://www.ecodevo.state.mo.us/cd/htpc.html).
[16]Id.
[17]Mo. Rev. Stat. § 253.557.

Characteristic	Federal Credit	Missouri Credit
Per-Program Maximum	None	None
Annual Credit Limitations	None	None
Commercial Buildings	Qualify	Qualify
Residences	Do Not Qualify	Qualify
Restoration Period	24 Months or 60 Months	24 Months
Holding Period	5 Years	None
Reduction of Basis by Amount of Credit	Yes	No
Recapture	Yes	No
Carry-Back Period	1 Year	3 Years
Carry-Forward Period	20 Years	10 Years
Partnership Allocations	Pro-Rata	Pro-Rata or Based on Agreement
Transferable	No	Yes
Subject to Post-Issuance Audit	Yes	No
Requires Audit of Expenses <$500,000	No	Yes

Lohman et al. 2000. *The Missouri Business Law Quarterly* 5:4 (fall).

Prior Literature

A number of pamphlets and other literature have considered the Missouri Historic Tax Credit Program or related topics. We present a sample annotated list below.

Historic Tax Credit Program. January 1999. *Missouri Historic Preservation Tax Credit Program.* Department of Economic Development. The Department of Economic Development is responsible for issuing historic preservation tax credits. Therefore, a general information document was produced to explain key definitions, specific requirements, as well as an explanation of the two approval processes. In addition, two historic tax credit forms are attached. In the appendix of the document, the Secretary of Interior's Standards for Rehabilitation is outlined, listing special concerns and documentation requirements.

Historic Preservation Program and Community Development Division. March 1999. *Federal and Missouri State Investment Tax Credits for Certified Rehabilitation of Historic Buildings--A Comparison.* Missouri Department of Natural Resources and Missouri Department of Economic Development. This brief, 6-paged chart is constructed in a 'question-and-answer' style. The questions are followed with individual answers, concerning both federal and state historic tax credits.

Missouri Alliance for Historic Preservation. February 1997. *Proposed State of Missouri Historic Rehabilitation Investment Tax Credit: Analysis of Costs and Benefits.* The executive summary begins by stating that this proposal is merely a starting point of a methodology, which will aid in preparing future fiscal analyses. Methodologies were summarized for estimating the state cost of the proposed historic rehabilitation tax credit, as well as for estimating fiscal benefits created by then proposed historic rehabilitation tax credit. In the executive summary, the proposal estimated specific results. For instance, between 1998 and 2003, an additional $200 million in historic rehabilitation activity, will be created. Also, 3,400 construction jobs and 3,800 other jobs will be produced over the next six years. Other

proposed results include economic and political benefits at all government levels. The summary includes multiple charts on cost/benefit analyses of the proposed Missouri historic rehabilitation tax credit.

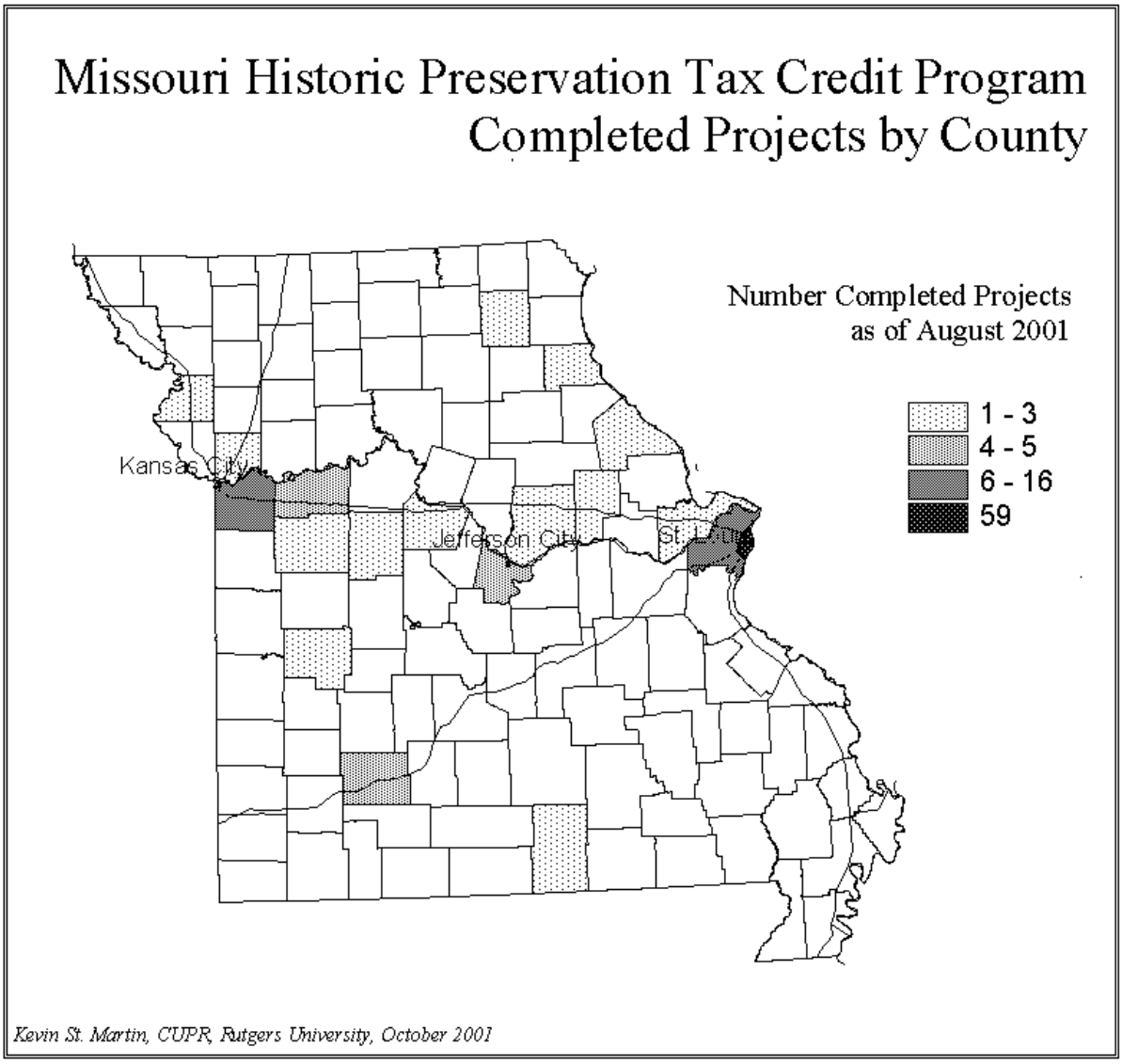
The St. Louis Urban Investment Task Force. September 1985. *The Impact of the Investment Tax Credit on Neighborhood, Commercial, and Downtown Development and Historic Preservation in St. Louis.* The St. Louis Urban Investment Task Force. The purpose of this report is to prove the significance of the federal historic Investment Tax Credit (ITC), its role as a development tool within the metropolitan region of St. Louis, and more importantly, to highlight St. Louis' rank as the first in the nation in the number of projects qualified for historic preservation tax credits. The document explains the philosophy of the ITC, as well as the significance of the ITC in St. Louis. The concerns over the possible loss of the ITC is discussed in depth, as one example describes an analysis "with" and "without" the ITC in residential rental rates. A map of historic rehabilitation activity for the City of St. Louis, as well as various charts and graphs are attached.

PART III: PROFILE OF MISSOURI HISTORIC PRESERVATION TAX CREDIT ACTIVITY

Geographic Distribution of MHPTC Projects

The full tally of completed MHPTC projects as of August 2001 are shown in exhibit 5.1. Although completed MHPTC projects are distributed across Missouri, they are highly concentrated in St. Louis and its surroundings. The city of St. Louis contains 60 of the 118 projects completed by August 2001. To a lesser extent, clusters of projects can be found in Kansas City, Lexington, and Jefferson City. In addition, individual projects have been completed in 20 other communities throughout the state.

FIGURE 1



A finer scale of analysis, that of zip code areas rather than counties, reveals a similar general pattern of urban concentration. At this scale, however, it is obvious that most completed MHPTC projects are located within the older urban cores of two Missouri cities: St. Louis and Kansas City. In St. Louis, one zip code area (63104) in the center of the city contains 19 projects while 9 projects can be found within the central zip code (64105) of Kansas City (figure 2). St. Louis has significant concentrations of projects in at least 5 other city zip codes (5-10 projects in each) whereas Kansas City has few other projects outside its central zip code area. Both Lexington and Jefferson City have 5 completed projects (in zip codes 65101 and 64067 respectively).

FIGURE 2

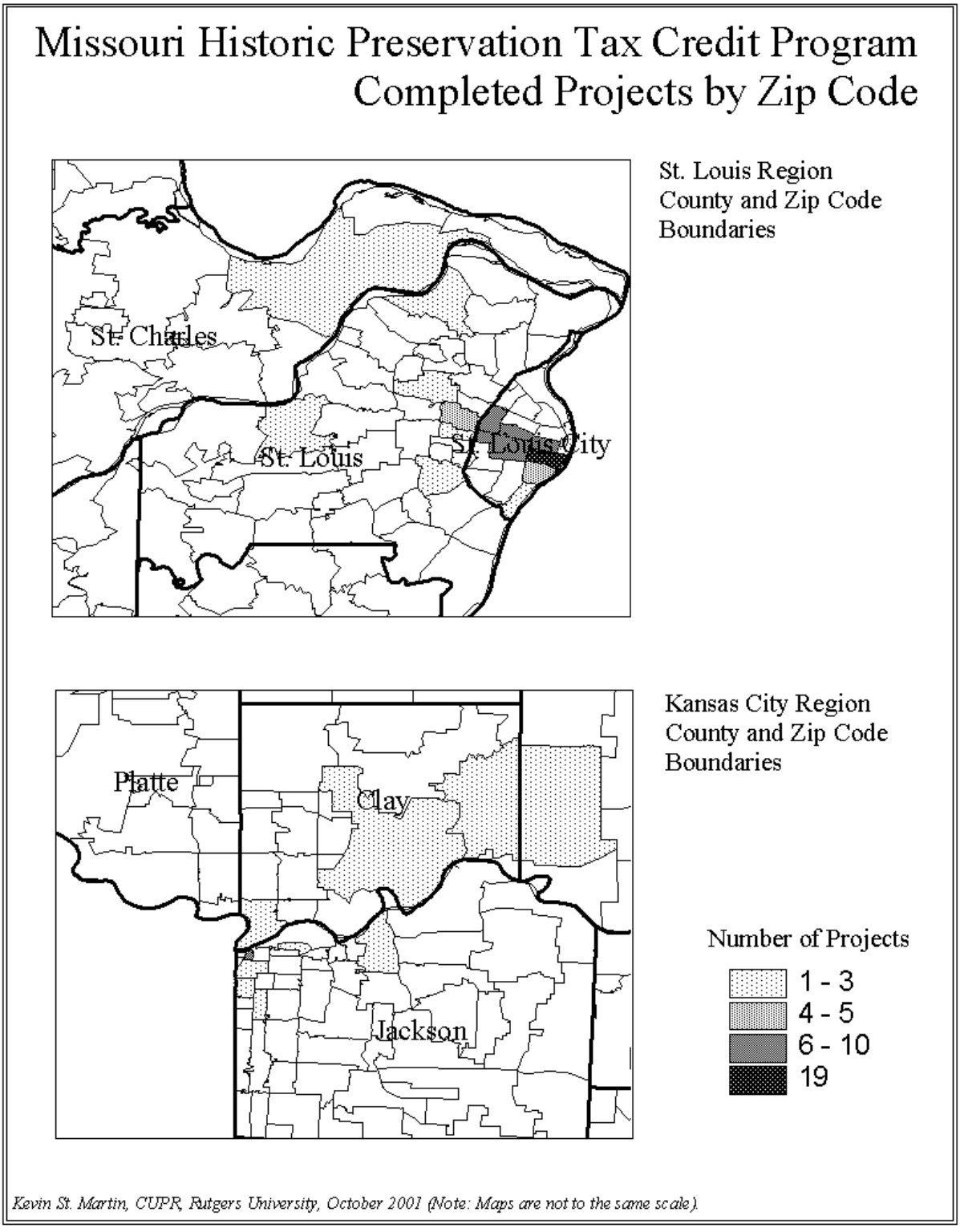
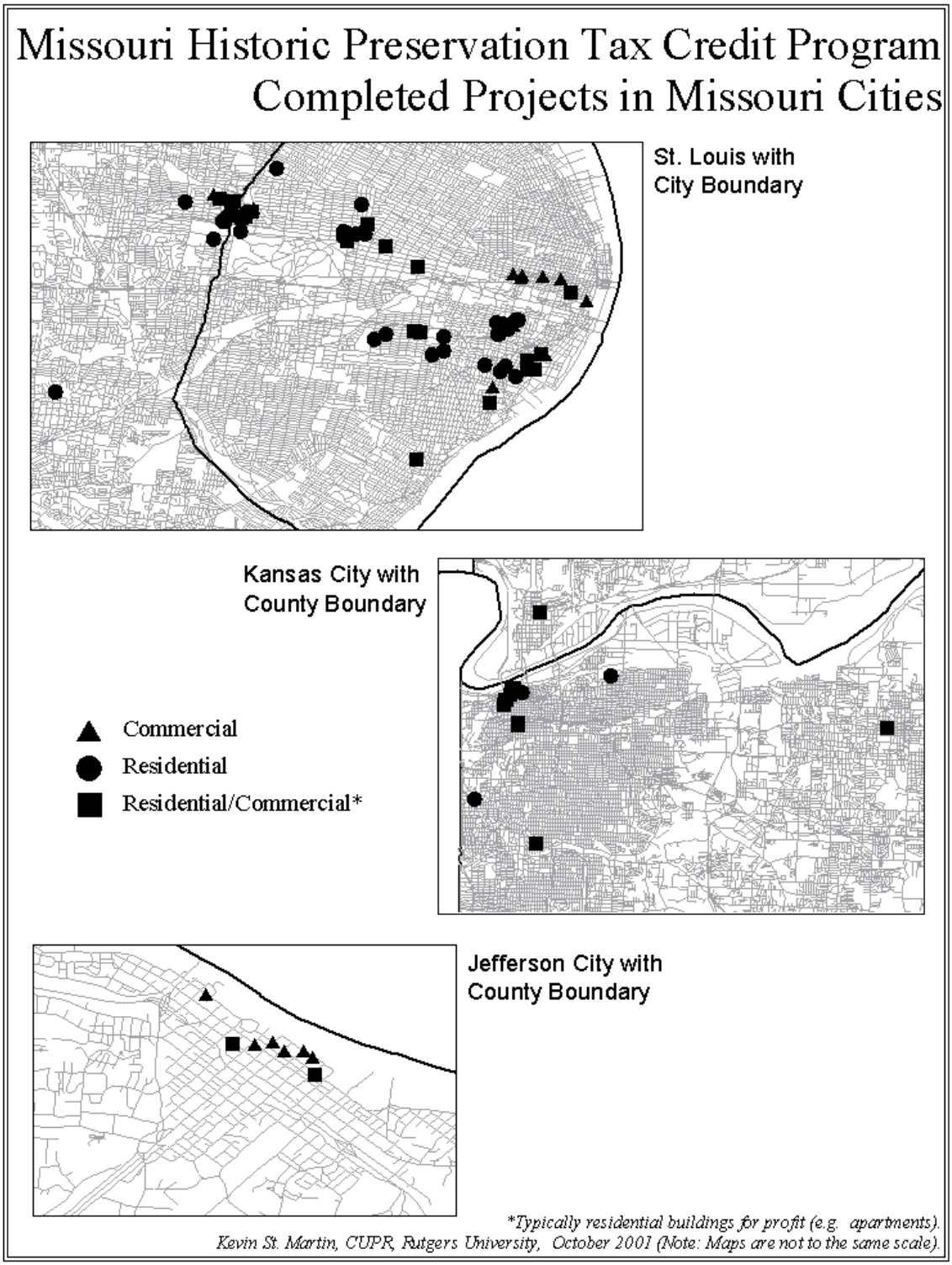

Missouri Historic Preservation Tax Credit Program
Completed Projects by Zip Code
St. Louis Region
County and Zip Code
Boundaries
St. Charles
St. Louis
St. Louis City
Kansas City Region
County and Zip Code
Boundaries
Platte
Clay
Jackson
Number of Projects
1 - 3
4 - 5
6 - 10
19
Kevin St. Martin, CUPR, Rutgers University, October 2001 (Note: Maps are not to the same scale).

FIGURE 3


Missouri Historic Preservation Tax Credit Program
Completed Projects in Missouri Cities
St. Louis with
City Boundary
Kansas City with
County Boundary
Commercial
Residential
Residential/Commercial*
Jefferson City with
County Boundary
*Typically residential buildings for profit (e.g. apartments).
Kevin St. Martin, CUPR, Rutgers University, October 2001 (Note: Maps are not to the same scale).

Completed MHPTC projects are primarily residential or residential/commercial in nature (84 out of 118). Residential/commercial refers to completed projects that are residential but managed on a for-profit basis (e.g., apartment buildings). A total of 34 completed MHPTC projects were classified as simply commercial. The geographic distribution of individual projects by classification type (i.e. residential, commercial, or residential/commercial) in St. Louis shows commercial projects tightly clustered to the northeast of the downtown while residential (and residential/commercial) projects are clustered to the south of the city center and in the central western part of the city (figure 3). Projects in Kansas City and Jefferson City are clustered in downtown areas; however, in Kansas City most projects are residential/commercial while in Jefferson City they are primarily commercial (figure 3).

Demographic and Housing Context of MHPTC Projects

Exhibit 5.5 shows summary information for the nine Missouri zip codes containing the highest number of completed MHPTC projects. Columns in the table represent general census information (from 1990) on population and housing for each of the nine zip codes. These nine zip codes contain 75 completed projects (64 percent of the total MHPTC program). Six of the zip codes are in St. Louis while only one each is in Kansas City, Lexington, and Jefferson City. In addition to data by zip code, the table summarizes information for all zip codes in Missouri (row 1) and for all zip codes containing at least one MHPTC project (row 2). This allows comparison between the top nine zip codes and averages for all zip codes with projects and averages for the state (by zip code).

MHPTC projects are located in densely populated urban core areas as is clear from the figures 1 and 2. This is confirmed by the 1990 census data. The top nine zip codes are in areas that are nearly completely urban as indicated by the percent population that is urban for each zip code. The average for all zip codes with MHPTC projects, however, shows that some are located in somewhat less urban areas (percent urban population is 82 on average). The top nine zip codes are areas that have a strikingly higher minority population than the state as a whole and this observation remains true for all MHPTC zip code areas. In addition, census information shows that median household incomes for these urban core areas (the top nine zip codes) are lower than the state average and lower than other zip code areas containing completed projects. Finally, eight of the top nine zip codes have been classified as “distressed” and are “targeted” by the state Department of Economic Development as areas in need of economic development.

In terms of census housing variables, the top nine zip codes reveal a pattern consistent with other urban core areas. In these zip codes, the median year in which housing units were built is lower (i.e., the housing stock is older) than that of the state average. However, the average for all MHPTC zip codes is the same as the state average. These older housing units have a significantly higher rate of vacancy than the state and a lower rate of owner occupancy.

EXHIBIT 5.5
Summary MHPTC Data by Missouri Zip Code

	Number of completed projects	Population				Housing Units			Area Type	
		Pop Density (per sq. mile)	% Urban	% White	Median Household Income	Median Year Built	% Vacant	% Owner Occupied	Distressed Area Y = Yes	Targeted Area Y = Yes
Avg. of all zip codes in MO		443	22	95	$22,484	1956	14	65		
Avg. of all zip codes with completed MHPTC projects		2,882	82	81	$24,143	1956	13	47		
Top 7 MHPTC zip codes										
63104*	19	6,218	100	49	$17,766	1939	23	24	Y	Y
63108*	10	9,541	100	48	$17,536	1939	16	21	Y	Y
63112*	9	9,480	100	15	$16,736	1939	18	28	Y	Y
64105^	9	2,590	100	73	$18,360	1954	21	4	N	N
63110*	7	3,652	100	54	$18,554	1939	18	31	Y	Y
63103*	6	3,184	100	38	$13,467	1963	28	0	Y	Y
65101~	5	210	70	85	$27,061	1962	10	54	Y	Y
63118*	5	9,791	100	80	$17,211	1939	18	30	Y	Y
64067+	5	82	76	94	$20,803	1961	9	63	Y	Y
Totals	75									

Notes:

* = St. Louis Region
^ = Kansas City Region
~ = Jefferson City
+ = Lexington

In summary, the majority of MHPTC projects are in "distressed" urban core areas that have lower incomes, a high minority presence, older housing stock, and higher rates of housing unit vacancy. This characterizes the zip codes containing completed projects in St. Louis and Kansas City. The notable exceptions are the two zip codes in the top nine located in Lexington and Jefferson City. These zip codes, while defined as "distressed" and "targeted," display significantly different characteristics than those in either St. Louis or Kansas City (i.e. less urban, higher income, newer housing stock, lower vacancy rates, etc.).

PART IV: ECONOMIC IMPACTS OF THE MHPTC

Missouri offers one of the nation's most successful programs to foster historic rehabilitation through a state of Missouri Historic Preservation Tax Credit Program (MHPTC). As noted, through August 2001, historic rehabilitation projects amounting to about $295 million have been completed under the MHPTC. This amounts to an annual average of about $100 million in rehabilitation effort.[18] To date, the cumulative cost for this effort has been a quarter of the $295 million, approximately—$74 million in total or about $25 million per year.

The $295 million in historic rehabilitation activity fostered by the MHPTC generates additional secondary economic activity and benefits. These economic impacts, which are added through indirect and induced consequences, are calculated by applying the Preservation Economic Impact Model to the $295 million in total direct historic rehabilitation activity.

The detail of this $295 million direct rehabilitation expenditure plus the multiplier effects is detailed in exhibits 5.6 (national) and exhibit 5.7 (in-state) and summarized in exhibit 5.2.

The in-state *benefits* are of particular interest here because the MHPTC is a state-level investment. From this perspective, it is clear that Missouri benefits significantly from the MHPTC's rehab support. The $74 million in credits returns about $249 million in wealth to the state—a good rate of return for any public infrastructure investment. Much of this $249 million ($212 million, or 93.7 percent) is income. Further, it creates nearly 6,900 person years of work in the state and adds $283 million in gross state product.

The benefits from the MHRTC's rehab support are felt throughout the economy. For instance of the $212 million in Missouri income, the construction; services; manufacturing; and finance, insurance, and real estate (FIRE) industries in Missouri garner $100 million, $35 million, $21 million, and $21 million respectively (exhibit 5.7).

But there are additional benefits. Heritage tourism is very likely to increase from the enhancements to the historic stock fostered by the MHPTC. Ideally, one could calculate that relationship from Missouri data but the data are not available. We therefore *approximate* the relationship based on empirical research we conducted in New Jersey. (We recognize the pitfalls of comparing these two states.) From a 1996 survey of operators of historic sites and museums in New Jersey, we estimate that the MHPTC's annual $100 million of historic rehabilitation will translate roughly to $5.6 million in added heritage tourism yearly or $112 million over 20 years. (As the rehab to tourism linkage is a long-term one, we consider the effects over a two-decade

[18]We count over three years (1999, 2000, and 2001) because there were only a handful of projects in the program's initial year (1998).

period). The total (direct and indirect/ induced) effects of this $112 million spending over two decades added by annual heritage tourism are detailed in exhibits 5.8 (national), exhibit 5.9 (in-state), and summarized in exhibit 5.3.

The *total* economic impact from the MHPTC, including *both* the rehabilitation and tourism benefits,[19] are shown in exhibits 5.10 through 5.13. There are benefits to both the nation and state. Missouri garners: 10,278 jobs; $267 million in income; $381 million in gross state product; $85 million in taxes (including $39 million in state/local taxes); and $335 million in in-state wealth. These effects are felt throughout the Missouri economy. For instance, of the 380 million in Gross State Product (GSP), the construction, services, retail trade, and FIRE industries capture $118 million, $80 million, $54 million, and $47 million respectively (exhibit 5.12). Of the $118 million GSP, general building contractors reap $84 million in GSP (exhibit 5.13). Of the $80 million in service industry GSP hotel and other lodgings capture $21 million. Further, state benefits from the cumulative MHPTC effects are detailed in exhibits 5.12 and 5.13.

[19]The rehab impact is over three years and the tourism impact is over 20 years.

EXHIBIT 5.6
National Economic and Tax Impacts of Cumulative
MHPTC-Supported Missouri Historic Building Rehabilitation ($295 Million)

	Economic Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
I. TOTAL EFFECTS (Direct and Indirect/Induced)*			
Private			
1. Agriculture	102	1,736	6,758
2. Agri. Serv., Forestry, & Fish	162	3,528	4,084
3. Mining	147	4,551	14,042
4. Construction	3,381	109,131	126,139
5. Manufacturing	2,280	75,561	123,178
6. Transport. & Public Utilities	606	23,079	48,376
7. Wholesale	458	22,098	32,367
8. Retail Trade	1,515	28,561	41,076
9. Finance, Ins., & Real Estate	906	50,385	85,125
10. Services	2,135	68,852	93,313
Private Subtotal	11,695	387,483	574,457
Public			
11. Government	94	3,384	3,274
Total Effects (Private and Public)	11,789	390,868	577,731
II. DISTRIBUTION OF EFFECTS/MULTIPLIER			
1. Direct Effects	4,624	149,442	185,373
2. Indirect and Induced Effects	7,165	241,425	392,357
3. Total Effects	11,789	390,868	577,731
4. Multipliers (3/1)	2.55	2.62	3.12
III. COMPOSITION OF GROSS STATE PRODUCT			
1. Wages—Net of Taxes			343,745
2. Taxes			
a. Local/State			55,112
b. Federal			
General			37,062
Insurance Trusts			30,297
Federal Subtotal			67,360
c. Total taxes (2a+2b)			122,471
3. Profits, dividends, rents, and other			111,514
4. Total Gross State Product (1+2+3)			577,731
EFFECTS PER MILLION DOLLARS OF INITIAL EXPENDITURE			
Employment (Jobs)			40.0
Income			1,326,836
Local/State Taxes			186,820
Gross State Product			1,958,409

Note: Detail may not sum to totals due to rounding.

*Terms:

Direct Effect (State)—the proportion of direct spending on goods and services produced.

Indirect Effects—the value of goods and services needed to support the provision of those direct economic effects.

Induced Effects—the value of goods and services needed by households that provide the direct and indirect labor.

EXHIBIT 5.7
In-state Economic and Tax Impacts of Cumulative (20 Years)
MHPTC-Supported Missouri Historic Building Rehabilitation ($ 295 Million)

	Economic Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
I. TOTAL EFFECTS (Direct and Indirect/Induced)*			
Private			
1. Agriculture	14	108	464
2. Agri. Serv., Forestry, & Fish	86	1,729	1,604
3. Mining	59	1,843	3,830
4. Construction	3,060	100,339	115,582
5. Manufacturing	771	20,927	34,486
6. Transport. & Public Utilities	212	7,323	14,833
7. Wholesale	172	7,265	10,650
8. Retail Trade	906	14,888	21,075
9. Finance, Ins., & Real Estate	454	21,499	33,156
10. Services	1,100	34,904	46,579
Private Subtotal	6,832	210,826	282,259
Public			
11. Government	39	1,180	1,117
Total Effects (Private and Public)	6,871	212,007	283,376
II. DISTRIBUTION OF EFFECTS/MULTIPLIER			
1. Direct Effects	4,044	132,322	163,517
2. Indirect and Induced Effects	2,827	79,684	119,859
3. Total Effects	6,871	212,007	283,376
4. Multipliers (3/1)	1.70	1.60	1.73
III. COMPOSITION OF GROSS STATE PRODUCT			
1. Wages—Net of Taxes			179,075
2. Taxes			
a. Local/State			25,277
b. Federal			
General			18,312
Insurance Trusts			15,968
Federal Subtotal			34,280
c. Total taxes (2a+2b)			59,557
3. Profits, dividends, rents, and other			44,743
4. Total Gross State Product (1+2+3)			283,376
EFFECTS PER MILLION DOLLARS OF INITIAL EXPENDITURE			
Employment (Jobs)			23.3
Income			718,666
Local/State Taxes			85,686
Gross State Product			960,595

Note: Detail may not sum to totals due to rounding.

*Terms:

Direct Effect (State)—the proportion of direct spending on goods and services produced.

Indirect Effects—the value of goods and services needed to support the provision of those direct economic effects.

Induced Effects—the value of goods and services needed by households that provide the direct and indirect labor.

EXHIBIT 5.8
National Economic and Tax Impacts of Cumulative (20 Years)
MHPTC-Supported Missouri Heritage Tourism Spending ($ 112 million)

	Economic Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
I. TOTAL EFFECTS (Direct and Indirect/Induced)*			
Private			
1. Agriculture	67	1,096	4,310
2. Agri. Serv., Forestry, & Fish	29	752	799
3. Mining	22	604	2,785
4. Construction	167	4,761	6,204
5. Manufacturing	420	14,845	25,178
6. Transport. & Public Utilities	172	6,999	15,350
7. Wholesale	133	6,557	9,926
8. Retail Trade	1,514	22,124	38,563
9. Finance, Ins., & Real Estate	235	15,245	31,025
10. Services	1,228	28,701	45,486
Private Subtotal	3,988	101,684	179,625
Public			
11. Government	31	1,216	1,183
Total Effects (Private and Public)	4,018	102,900	180,809
II. DISTRIBUTION OF EFFECTS/MULTIPLIER			
1. Direct Effects	2,639	30,965	58,442
2. Indirect and Induced Effects	1,380	71,935	122,366
3. Total Effects	4,018	102,900	180,809
4. Multipliers (3/1)	1.52	3.32	3.09
III. COMPOSITION OF GROSS STATE PRODUCT			
1. Wages—Net of Taxes			99,905
2. Taxes			
a. Local/State			22,246
b. Federal			
General			12,355
Insurance Trusts			8,272
Federal Subtotal			20,627
c. Total taxes (2a+2b)			42,873
3. Profits, dividends, rents, and other			38,031
4. Total Gross State Product (1+2+3)			180,809
EFFECTS PER MILLION DOLLARS OF INITIAL EXPENDITURE			
Employment (Jobs)			35.9
Income			918,749
Local/State Taxes			198,628
Gross State Product			1,614,362

Note: Detail may not sum to totals due to rounding.

*Terms:

Direct Effect (State)—the proportion of direct spending on goods and services produced.

Indirect Effects—the value of goods and services needed to support the provision of those direct economic effects.

Induced Effects—the value of goods and services needed by households that provide the direct and indirect labor.

EXHIBIT 5.9
In-State Economic and Tax Impacts of Annual
Missouri Heritage Tourism Spending ($ 112 million)

	Economic Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
I. TOTAL EFFECTS (Direct and Indirect/Induced)*			
Private			
1. Agriculture	16	114	463
2. Agri. Serv., Forestry, & Fish	10	198	182
3. Mining	0	7	18
4. Construction	21	1,774	2,421
5. Manufacturing	75	2,170	3,676
6. Transport. & Public Utilities	81	2,644	5,803
7. Wholesale	64	2,471	3,852
8. Retail Trade	1,747	18,533	33,300
9. Finance, Ins., & Real Estate	149	7,106	14,026
10. Services	1,224	19,545	33,071
Private Subtotal	3,387	54,563	96,812
Public			
11. Government	20	596	559
Total Effects (Private and Public)	3,407	55,159	97,372
II. DISTRIBUTION OF EFFECTS/MULTIPLIER			
1. Direct Effects	2,476	28,484	53,768
2. Indirect and Induced Effects	931	26,675	43,603
3. Total Effects	3,407	55,159	97,372
4. Multipliers (3/1)	1.38	1.94	1.81
III. COMPOSITION OF GROSS STATE PRODUCT			
1. Wages—Net of Taxes			56,539
2. Taxes			
a. Local/State			13,489
b. Federal			
General			7,117
Insurance Trusts			4,504
Federal Subtotal			11,620
c. Total taxes (2a+2b)			25,110
3. Profits, dividends, rents, and other			15,723
4. Total Gross State Product (1+2+3)			97,372
EFFECTS PER MILLION DOLLARS OF INITIAL EXPENDITURE			
Employment (Jobs)			30.4
Income			492,488
Local/State Taxes			120,439
Gross State Product			869,390

Note: Detail may not sum to totals due to rounding.

*Terms:

Direct Effect (State)—the proportion of direct spending on goods and services produced.

Indirect Effects—the value of goods and services needed to support the provision of those direct economic effects.

Induced Effects—the value of goods and services needed by households that provide the direct and indirect labor.

EXHIBIT 5.10
Cumulative National Economic and Tax Impacts of
Missouri Historic Tax Credit Program
($407 Million; $295 Million Rehab; $112 Million Tourism)

	Economic Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
I. TOTAL EFFECTS (Direct and Indirect/Induced)*			
Private			
1. Agriculture	161	2,832	11,057
2. Agri. Serv., Forestry, & Fish	175	4,280	4,908
3. Mining	154	5,155	16,866
4. Construction	4,278	113,893	133,058
5. Manufacturing	2,522	90,405	149,590
6. Transport. & Public Utilities	752	30,078	63,682
7. Wholesale	560	28,655	42,293
8. Retail Trade	2,729	50,686	79,622
9. Finance, Ins., & Real Estate	1,017	65,630	116,150
10. Services	3,167	97,553	138,550
Private Subtotal	15,516	489,167	755,775
Public			
11. Government	116	4,601	4,496
Total Effects (Private and Public)	15,632	493,768	760,271
II. DISTRIBUTION OF EFFECTS/MULTIPLIER			
1. Direct Effects	7,701	180,407	249,233
2. Indirect and Induced Effects	7,931	313,360	511,038
3. Total Effects	15,632	493,768	760,271
4. Multipliers (3/1)	2.030	2.737	3.050
III. COMPOSITION OF GROSS STATE PRODUCT			
1. Wages—Net of Taxes			443,650
2. Taxes			
a. Local/State			77,766
b. Federal			
General			49,691
Insurance Trusts			38,793
Federal Subtotal			88,485
c. Total taxes (2a+2b)			166,251
3. Profits, dividends, rents, and other			150,370
4. Total Gross State Product (1+2+3)			760,271
EFFECTS PER MILLION DOLLARS OF INITIAL EXPENDITURE			
Employment (Jobs)			38.4
Income			1,213,188
Local/State Taxes			191,071
Gross State Product			1,867,988

Note: Detail may not sum to totals due to rounding.

*Terms:

Direct Effect (State)—the proportion of direct spending on goods and services produced.

Indirect Effects—the value of goods and services needed to support the provision of those direct economic effects.

Induced Effects—the value of goods and services needed by households that provide the direct and indirect labor.

EXHIBIT 5.11
National Economic Impacts (Industry Detail) of Cumulative Missouri Historic Tax Credit Program
($407 Million; $295 Million Rehab; $112 Million Tourism)

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Agriculture	**169**	**2,832**	**11,068**
Dairy Farm Products	26	490	2,116
Eggs	0	10	30
Meat Animals	43	727	3,158
Misc. Livestock	3	55	100
Wool	0	5	19
Cotton	9	151	453
Tobacco	0	6	34
Grains & Misc. Crops	5	69	298
Feed Crops	21	356	1,538
Fruits & Nuts	32	419	1,576
Vegetables	8	165	413
Greenhouse & Nursery Products	8	141	610
Sugar Beets & Cane	2	40	126
Flaxseed, Peanuts, Soybean, Sunflower	11	199	596
Agri. Serv., Forestry, & Fish	**191**	**4,280**	**4,883**
Agri. Services (07)	168	3,831	3,534
Forestry (08)	21	403	1,210
Fishing, Hunting, & Trapping (09)	3	47	140
Mining	**169**	**5,155**	**16,827**
Coal Mining (12)	19	701	1,726
Oil & Gas Extraction (13)	63	1,465	8,901
Nonmetal Min.-Ex. Fuels (14)	80	2,759	5,735
Metal Mining (10)	7	230	465
Construction	**3,548**	**113,893**	**132,343**
General Bldg. Contractors (15)	2,452	77,224	88,942
Heavy Const. Contractors (16)	574	19,768	22,462
Special Trade Contractors (17)	522	16,900	20,940
Manufacturing	**2,701**	**90,405**	**148,356**
Chemicals & Allied Prod. (28)	204	10,156	20,975
Petroleum & Coal Prod. (29)	148	4,376	11,708
Rubber & Misc. Plastics (30)	110	3,541	4,785
Leather & Leather Prod. (31)	17	434	722
Stone, Clay, & Glass (32)	297	9,400	13,288
Primary Metal Prod. (33)	114	5,377	7,785
Fabricated Metal Prod. (34)	397	11,748	18,533
Machinery, Except Elec. (35)	122	4,745	6,028
Electric & Elec. Equip. (36)	154	5,965	10,629
Transportation Equipment (37)	78	3,910	6,093
Instruments & Rel. Prod. (38)	35	1,486	1,670
Misc. Manufacturing Ind's. (39)	118	2,961	4,996
Food & Kindred Prod. (20)	197	6,634	12,164
Tobacco Manufactures (21)	4	164	463
Textile Mill Prod. (22)	139	3,323	4,438
Apparel & Other Prod. (23)	82	1,917	2,474
Limber & Wood Prod. (24)	267	6,288	9,968
Furniture & Fixtures (25)	30	767	1,067
Paper & Allied Prod. (26)	72	3,081	4,875
Printing & Publishing (27)	116	4,131	5,694
Transport. & Public Utilities	**778**	**30,078**	**63,725**
Railroad Transportation (40)	74	1,269	3,490
Local Pass. Transit (41)	66	1,112	1,663

EXHIBIT 5.11 (continued)
National Economic Impacts (Industry Detail) of Cumulative Missouri Historic Tax Credit Program
($407 Million; $295 Million Rehab; $112 Million Tourism)

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Trucking & Warehousing (42)	267	10,580	11,895
Water Transportation (44)	22	875	1,384
Transportation by Air (45)	56	2,003	3,327
Pipe Lines-Ex. Nat. Gas (46)	2	157	671
Transportation Services (47)	32	1,085	1,742
Communication (48)	127	6,447	15,912
Elec., Gas, & Sanitary Serv. (49)	132	6,550	23,642
Wholesale	**592**	**28,655**	**42,293**
Wholesale-Durable Goods (50)	302	17,723	23,015
Wholesale-Nondurable Goods (51)	290	10,931	19,277
Retail Trade	**3,029**	**50,686**	**79,639**
Bldg. Mat.-Garden Supply (52)	71	1,938	2,906
General Merch. Stores (53)	198	6,351	5,293
Food Stores (54)	213	4,796	6,322
Auto. Dealers-Serv. Stat. (55)	193	5,465	8,969
Apparel & Access. Stores (56)	144	2,509	3,516
Furniture & Home Furnish. (57)	48	1,698	1,689
Eating & Drinking Places (58)	1,879	20,328	40,649
Miscellaneous Retail (59)	283	7,601	10,294
Finance, Ins., & Real Estate	**1,142**	**65,630**	**116,150**
Banking (60)	156	4,675	14,680
Nondep. Credit Institut. (61)	285	19,235	20,377
Security, Comm. Brokers (62)	114	5,211	9,417
Insurance Carriers (63)	199	9,986	14,358
Ins. Agents, Brokers (64)	182	6,902	9,645
Real Estate (65)	62	4,415	31,921
Holding and Invest. Off. (67)	144	15,207	15,753
Services	**3,363**	**97,553**	**138,798**
Hotels & Other Lodging (70)	785	13,495	25,289
Personal Services (72)	207	5,622	6,393
Business Services (73)	730	19,107	28,659
Auto Repair, Serv., Garages (75)	106	2,550	5,960
Misc. Repair Services (76)	53	1,979	2,881
Motion Pictures (78)	98	3,042	3,805
Amusement & Recreation (79)	170	4,084	5,418
Health Services (80)	167	4,689	5,780
Legal Services (81)	148	7,651	11,738
Educational Services (82)	103	2,393	2,549
Social Services (83)	91	1,321	1,374
Museums, Gardens & Mem. Orgs. (84, 86)	196	4,960	5,107
Engineer. & Manage. Serv. (87)	419	22,053	27,720
Private Households (88)	0	0	0
Miscellaneous Services (89)	90	4,607	6,127
Government	**125**	**4,601**	**4,457**
Total	**15,807**	**493,768**	**758,539**

Note: Detail may not sum to totals due to rounding.

EXHIBIT 5.12
Cumulative In-state Economic and Tax Impacts of
Missouri Historic Tax Credit Program
($407 Million; $295 Million Rehab; $112 Million Tourism)

	Economic Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
I. TOTAL EFFECTS (Direct and Indirect/Induced)*			
Private			
1. Agriculture	29	222	927
2. Agri. Serv., Forestry, & Fish	96	1,928	1,786
3. Mining	59	1,850	3,849
4. Construction	3,081	102,113	118,003
5. Manufacturing	847	23,097	38,162
6. Transport. & Public Utilities	293	9,967	20,636
7. Wholesale	236	9,737	14,501
8. Retail Trade	2,653	33,422	54,375
9. Finance, Ins., & Real Estate	602	28,605	47,182
10. Services	2,324	54,449	79,651
Private Subtotal	10,220	265,389	379,071
Public			
11. Government	58	1,776	1,676
Total Effects (Private and Public)	10,278	267,165	380,747
II. DISTRIBUTION OF EFFECTS/MULTIPLIER			
1. Direct Effects	6,520	160,806	217,285
2. Indirect and Induced Effects	3,758	106,359	163,462
3. Total Effects	10,278	267,165	380,747
4. Multipliers (3/1)	1.576	1.661	1.752
III. COMPOSITION OF GROSS STATE PRODUCT			
1. Wages—Net of Taxes			235,614
2. Taxes			
a. Local/State			38,767
b. Federal			
General			25,429
Insurance Trusts			20,472
Federal Subtotal			45,900
c. Total taxes (2a+2b)			84,667
3. Profits, dividends, rents, and other			60,466
4. Total Gross State Product (1+2+3)			380,747
EFFECTS PER MILLION DOLLARS OF INITIAL EXPENDITURE			
Employment (Jobs)			25.3
Income			656,426
Local/State Taxes			95,250
Gross State Product			935,497

Note: Detail may not sum to totals due to rounding.

*Terms:

Direct Effect (State)—the proportion of direct spending on goods and services produced.

Indirect Effects—the value of goods and services needed to support the provision of those direct economic effects.
Induced Effects—the value of goods and services needed by households that provide the direct and indirect labor.

EXHIBIT 5.13
In-state Economic Impacts(Industry Detail) of Cumulative Missouri Historic Tax Credit Program ($407 Million; $295 Million Rehab; $112 Million Tourism)

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Agriculture	**29**	**222**	**927**
Dairy Farm Products	0	0	0
Eggs	0	1	2
Meat Animals	17	125	547
Misc. Livestock	0	0	1
Wool	0	0	0
Cotton	0	1	2
Tobacco	0	0	0
Grains & Misc. Crops	2	9	37
Feed Crops	1	27	116
Fruits & Nuts	6	11	40
Vegetables	0	4	4
Greenhouse & Nursery Products	2	32	139
Sugar Beets & Cane	0	0	0
Flaxseed, Peanuts, Soybean, Sunflower	1	13	39
Agri. Serv., Forestry, & Fish	**96**	**1,928**	**1,786**
Agri. Services (07)	95	1,915	1,748
Forestry (08)	0	12	37
Fishing, Hunting, & Trapping (09)	0	0	0
Mining	**59**	**1,850**	**3,849**
Coal Mining (12)	0	0	0
Oil & Gas Extraction (13)	0	5	28
Nonmetal Min.-Ex. Fuels (14)	59	1,844	3,818
Metal Mining (10)	0	1	2
Construction	**3,081**	**102,113**	**118,003**
General Bldg. Contractors (15)	2,284	72,963	83,956
Heavy Const. Contractors (16)	512	18,332	20,806
Special Trade Contractors (17)	285	10,818	13,241
Manufacturing	**847**	**23,097**	**38,162**
Chemicals & Allied Prod. (28)	45	1,798	3,690
Petroleum & Coal Prod. (29)	111	2,503	6,129
Rubber & Misc. Plastics (30)	11	273	369
Leather & Leather Prod. (31)	2	36	59
Stone, Clay, & Glass (32)	200	5,959	8,259
Primary Metal Prod. (33)	11	399	578
Fabricated Metal Prod. (34)	172	4,436	7,001
Machinery, Except Elec. (35)	22	647	824
Electric & Elec. Equip. (36)	17	537	967
Transportation Equipment (37)	14	616	969
Instruments & Rel. Prod. (38)	6	220	248
Misc. Manufacturing Ind's. (39)	11	197	340
Food & Kindred Prod. (20)	49	1,436	2,631
Tobacco Manufactures (21)	0	3	5
Textile Mill Prod. (22)	1	12	17
Apparel & Other Prod. (23)	18	288	372
Limber & Wood Prod. (24)	114	2,394	3,794
Furniture & Fixtures (25)	6	155	215
Paper & Allied Prod. (26)	8	258	405
Printing & Publishing (27)	30	930	1,290
Transport. & Public Utilities	**293**	**9,967**	**20,636**
Railroad Transportation (40)	11	377	1,037
Local Pass. Transit (41)	45	541	810

EXHIBIT 5.13 (continued)
In-state Economic Impacts(Industry Detail) of Cumulative Missouri Historic Tax Credit Program
($407 Million; $295 Million Rehab; $112 Million Tourism)

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Trucking & Warehousing (42)	110	3,884	4,399
Water Transportation (44)	5	142	225
Transportation by Air (45)	15	500	831
Pipe Lines-Ex. Nat. Gas (46)	0	11	48
Transportation Services (47)	10	289	471
Communication (48)	53	2,211	5,492
Elec., Gas, & Sanitary Serv. (49)	43	2,012	7,324
Wholesale	**236**	**9,737**	**14,501**
Wholesale-Durable Goods (50)	114	5,741	7,456
Wholesale-Nondurable Goods (51)	122	3,995	7,046
Retail Trade	**2,653**	**33,422**	**54,375**
Bldg. Mat.-Garden Supply (52)	51	1,117	1,675
General Merch. Stores (53)	154	3,737	3,114
Food Stores (54)	157	2,744	3,617
Auto. Dealers-Serv. Stat. (55)	153	3,027	4,969
Apparel & Access. Stores (56)	104	1,315	1,843
Furniture & Home Furnish. (57)	30	892	887
Eating & Drinking Places (58)	1,795	16,088	32,171
Miscellaneous Retail (59)	208	4,502	6,099
Finance, Ins., & Real Estate	**602**	**28,605**	**47,182**
Banking (60)	68	2,029	6,372
Nondep. Credit Institut. (61)	170	9,491	10,054
Security, Comm. Brokers (62)	48	1,915	3,460
Insurance Carriers (63)	94	4,112	5,912
Ins. Agents, Brokers (64)	89	2,934	4,100
Real Estate (65)	26	1,431	10,350
Holding and Invest. Off. (67)	109	6,692	6,933
Services	**2,324**	**54,449**	**79,651**
Hotels & Other Lodging (70)	834	10,751	21,195
Personal Services (72)	135	2,951	3,331
Business Services (73)	365	8,352	12,485
Auto Repair, Serv., Garages (75)	53	1,086	2,529
Misc. Repair Services (76)	19	528	759
Motion Pictures (78)	70	848	1,061
Amusement & Recreation (79)	111	1,982	2,758
Health Services (80)	90	2,297	2,830
Legal Services (81)	83	3,961	6,077
Educational Services (82)	51	1,003	1,073
Social Services (83)	50	618	642
Museums, Gardens & Mem. Orgs. (84, 86)	100	2,284	2,350
Engineer. & Manage. Serv. (87)	310	15,886	20,029
Private Households (88)	0	0	0
Miscellaneous Services (89)	53	1,902	2,530
Government	**58**	**1,776**	**1,676**
Total	**10,278**	**267,165**	**380,747**

Note: Detail may not sum to totals due to rounding.

CHAPTER SIX

Putting the Economic Impacts of Historic Preservation in Perspective

INTRODUCTION AND SUMMARY OF THE ECONOMIC IMPACTS OF HISTORIC PRESERVATION

This chapter synthesizes and lends perspective to the study's findings and illustrates how the data and analytic approaches assembled in the current analysis can be put to use by preservationists.

Annual direct economic effects, calculated conservatively, include $346 million in historic rehabilitation spending, $660 million in heritage tourism spending, about $5 million in net[1] Main Street Program activity—for a total of slightly over $1 billion annually. Since its inception in 1998, the Missouri Historic Preservation Tax Credit Program (HPTC) has cumulatively amounted to about $300 million in rehabilitation investment. The MHPTC, spurred by cumulative state assistance of about $75 million in credits (about $25 million yearly), contributes to the $1 billion of annual Missouri historic preservation activity.

In all cases, base data were assembled and input-output analyses applied to project total effects (direct and indirect/induced) of these activities. The results are summarized in exhibit 6.1 and 6.2.

When multiplier effects are taken into account from the $1 billion annual investment, the total annual impacts to the nation include a gain of about 42,000 jobs; $1.1 billion in income; $1.8 billion in GDP; and $400 million in taxes.

These are the effects realized by the entire nation. The renovation of the Missouri State House, for instance, would likely include steel purchased from Michigan, lumber from Oregon, and paint from Texas. Missouri garners about half or more of the jobs, income, wealth and tax benefits of preservation activities. On an annual basis, the in-state effects include 28,000 jobs, $582 million in income, $917 million in gross state product (GSP), and $220 million in taxes ($110 million federal and $111 million state-local). The net in-state wealth is $807 million annually ($917 million GSP minus $110 million in federal taxes).

[1]Net of the historic rehabilitation and heritage tourism components.

EXHIBIT 6.1
Summary of the Annual Economic Impacts of Historic Preservation in Missouri

MISSOURI DIRECT EFFECTS		I ***Historic Rehabilitation*** $346 million annually of historic rehabilitation results in:	II ***Heritage Tourism*** $ 660 million annually of heritage travel-attributed spending, results in:	III ***Main Street Activity***[†] $5.4 million of construction annually plus 180 retail/service jobs results in:	***Total Examined Economic Impacts*** ($1.016 billion) ***(Sum I-III)***
↓		**National Total (Direct and Multiplier) Impacts**			
NATIONAL TOTAL IMPACTS (DIRECT AND MULTIPLIER)	Jobs	13,830	28,019	504	42,353
	Income	$459 million	$606 million	$13 million	$1,078 million
	GDP*	$678 million	$1,068 million	$20 million	$1,766 million
	Taxes: *Federal*	$79 million	$122 million	$2 million	$204 million
	Local/State	$65 million	$132 million	$2 million	$199 million
	Tax subtotal	$144 million	$254 million	$5 million	$402 million
↓		**In-State Missouri Total (Direct and Multiplier) Impacts**			
MISSOURI PORTION OF NATIONAL TOTAL IMPACTS	Jobs	8,060	20,077	359	28,496
	Income	$249 million	$325 million	$8 million	$582 million
	GSP*	$332 million	$574 million	$11 million	$917 million
	Taxes: *Federal*	$40 million	$68 million	$1 million	$110 million
	Local/State	$30 million	$79 million	$2 million	$111 million
	Tax subtotal	$70 million	$147 million	$3 million	$221 million
	In-state wealth*	$292 million	$506 million	$10 million	$807 million

Source: Rutgers University, Center for Urban Policy Research, 2001.

*GDP=Gross Domestic Product; GSP = Gross State Product; In-state wealth = GSP less federal taxes.

Note: Totals may differ from indicated subtotals because of rounding.

Net of associated historic rehabilitation and heritage tourism spending.

EXHIBIT 6.2
Summary of the Cumulative Economic Impacts of the Missouri Historic Preservation Tax Credit (MHPTC) As of August 2001 (Program Started in 1998)

MISSOURI DIRECT EFFECTS ↓		I ***Historic Rehabilitation*** $295 million MHPTC rehabilitation over 4years(1998-2001) results in:	II ***Heritage Tourism*** $ 112 million heritage travel-attributed expenditures, supported by MHPTC rehabilitation over 20 years results in:	***Total Examined Economic Impacts*** ***(Sum I-II)***
	National Total (Direct and Multiplier) Impacts			
NATIONAL TOTAL IMPACTS (DIRECT AND MULTIPLIER) ↓	Person-years of work†	11,789	4,018	15,807
	Income	$391 million	$103 million	494 million
	GDP*	$578 million	$181 million	760 million
	Taxes: Federal	$67 million	$21 million	88 million
	Local/State	$55 million	$22 million	78 million
	Tax subtotal	$122 million	$43 million	166 million
MISSOURI PORTION OF NATIONAL TOTAL IMPACTS	**In-State Missouri Total (Direct and Multiplier) Impacts**			
	Person-years of work†	6,871	3,407	10,278
	Income	$212 million	$55 million	267 million
	GSP*	$283 million	$97 million	381 million
	Taxes: Federal	$34 million	$12 million	46 million
	Local/State	$25 million	$13 million	39 million
	Tax subtotal†	$60 million	$25 million	85 million
	In-state wealth*($000)	$249 million	$86 million	335 million

Source: Rutgers University, Center for Urban Policy Research, 2001.

*GDP=Gross Domestic Product; GSP = Gross State Product; In-state wealth = GSP less federal taxes.

† "Person-years of work" are listed here rather than "jobs" as listed in Summary Exhibit 1 since the numbers represent an accumulation over four years.

Note: Totals may differ from indicated subtotals because of rounding.

Net of associated historic rehabilitation and heritage tourism spending.

- We also examine the effects from the Missouri Historic Preservation Tax Credit program. The MHPTC has economic effects from both the historic rehabilitation (i.e., construction) it engenders and from the historic tourism it supports (i.e., renovating Missouri's historic resources fosters visitation from heritage-oriented tourists). The former (rehabilitation) is a one-time benefit, while the latter (tourism) is an on-going benefit.[2]

- The *total* economic impact from the MHPTC, including *both* the rehabilitation and tourism benefits, are shown in exhibit 6.2. There are benefits to both the nation and state. Missouri garners: 10,278 jobs; $267 million in income; $381 million in gross state product; $85 million in taxes (including $39 million in state/local taxes); and $335 million in in-state wealth. These effects are felt throughout the Missouri economy.

COMPARING THE BENEFITS

How "large" are the above benefit figures? The standard economic response to almost any query is "it depends." Here, the yardstick of comparison is particularly important. Compared to the total economic scale at the national or state levels, historic preservation does not loom large. As of 1999, Missouri had 3.5 million people employed, and Missouri's total personal income was $144 billion. The in-state economic benefits of historic preservation traced about are clearly a small fraction of the statewide employment and earnings totals.

In part, the fraction is so small because much economic activity associated with rehabilitation and heritage tourism leaks out of that state. Recall the Missouri State House restoration using materials from around the country. But even at the national level, historic preservation is small when it is compared to the total economic scale of the country.

Although comparing historic preservation to total economic activity at both the state and national levels is somewhat instructive, it is also misleading: indeed, nearly any well-defined economic activity will not appear large against the sum of all activities. For instance, of the total 130 million individuals employed in the United States as of the mid-1990s, "only" 650,000 are lawyers—or one-half of one percent of the nation's total employment; yet lawyers, and for that matter any other singled-out professional group, are not viewed as small in number.

Rather than measuring historic preservation's economic benefits by the yardstick of *all* economic activity, it is more meaningful to examine it against a more appropriate scale—of which there are many. One, for instance, is a "linked" economic activity. Thus, while preservation is not a major Missouri employer in the totality of all employment,

[2]This study measures tourism's benefits from the MHPTC over 20 years. That enhanced tourism spending is estimated at $112 million over this two-decade period.

preservation is a contributor to the travel industry, and travel ranks in the top three Missouri economic activities.

The geographical scale of comparison is a further consideration. Thus far, we have been considering the more global scales of nation and state, but to paraphrase the adage about politics, to a practical extent "all economics are local." At the local level—and certainly for financially distressed communities, the economic contribution of historic preservation is much more noticeable. Take, for instance, the example of numerous Missouri Main Street Programs contained in small communities. In these localities, Main Street specifically and historic preservation generally, are important to local economic invigoration.

The same is true with respect to the penetration of "bricks and mortar" historic preservation. Thus, as discussed in chapter four, in Sedalia, rehabilitation via Main Street is an important activity. St. Louis, Kansas City, and other Missouri communities have benefited from millions of dollars in MHPTC-supported rehab.

Further, there is the positive support that historic rehabilitation lends to other construction activity in a community. When buildings in a historic neighborhood are rehabilitated in Sedalia, doesn't this encourage further rehabilitation in the city? The same is true in St. Louis, Kansas City, and other Missouri communities. What often makes urban areas distinctive is their place in history, so the preservation of these places fosters further rounds of renovation (as well as added tourism and other benefits).

In a complementary way, much as historic rehabilitation encourages all rehabilitation in a community and, for that matter, new construction there as well, these other activities improve the climate for historic preservation. We cannot currently disentangle and measure all these effects. But the fact that they are unquantified does not mean they do not exist. The point is that at a microscale level (such as at the level of the city of Sedalia), historic preservation has effects that loom relatively much more significant in import than when preservation is related to the overall magnitude of national or state economic activity.

A final note on the scale of the historic preservation benefit also relates to the inadequacy of our measuring capabilities. The quality of life, educational, and other benefits of preservation are not being tallied here. For instance, in the renovation of the Missouri State House, we count as an economic benefit to the state's economy the job, income, and GDP-GSP effects from both the rehabilitation and the ongoing visitation. Not counted, however, is the benefit from the thousands of visitors who now, knowing more about Missouri's important history and feeling more pride in the state, ultimately decide to live and work in the state, develop or expand businesses, refer others to visit, and so on. These benefits are elusive to measure but are there and add to the job, income, and GDP-GSP effects that are being tallied.

COMPONENTS OF THE BENEFITS OF PRESERVATION

Of the benefits from historic rehabilitation noted earlier and summarized in exhibit 6.1, the largest contribution is from heritage tourism, followed at a one-half level of impact (relative to heritage tourism) by historic rehabilitation, and then more distantly by the Main Street Program investment. The main reason for the differences in their total contributions is the varying orders of magnitude of the direct effects of the respective activities. Heritage tourism leads, with $660 million in annual spending, followed by the $346 million in historic rehabilitation, and then the much more modest annual expenditures of about $5 million for the Main Street programs.

The respective component contributions must be viewed holistically, however. Vibrant and restored historic sites throughout the state are essential to a healthy heritage tourism industry in Missouri. In fact, the multiplier effects from the historic rehabilitation compare quite favorably with those of the heritage tourism, as is shown in exhibit 6.3. In a parallel vein is the economic "bang" per million dollars of directly invested "buck" for the different historic preservation activities, also shown in exhibit 6.3. Construction generates a relatively high number of jobs per $1 million invested, but actually heritage tourism provides the highest job generation of all (reflecting its more modest wages per job).

EXHIBIT 6.3
Economic Effects by Component of Historic Preservation Activity

	Historic Preservation Activity†	
Economic Sector	Historic Rehabilitation	Heritage Tourism
	Effects Per Million Dollars of Initial Expenditure	
National		
Employment (jobs)	40.0	42.5
Income	1,325,258	918,753
GDP	1,958,831	1,618,199
Taxes		
State/Local	186,831	199,737
State		
Employment (jobs)	23.3	33.4
Income	718,810	492,437
GSP	960,787	869,363
Taxes		
State/Local	85,787	120,426
	Ratio of Total "Regional" Effects Compared to Direct "Regional" Effects	
National		
Employment	2.55	1.80
Income	2.62	3.32
GDP	3.12	3.10
State		
Employment	1.70	1.38
Income	1.60	1.94
GSP	1.73	1.81

Source: Rutgers University, Center for Urban Policy Research, 1998
Notes: GDP = Gross Domestic Product
GSP = Gross State Product
†Main Street Program investment is not shown separately here because it comprises components of the other activities displayed (e.g., historic rehabilitation and heritage tourism).

While ascribing effects to separate components of historic preservation is useful on one level, it is also an artificial construct. It is historic preservation in its collective whole that impacts the economy, and certain activities would not realize their maximum vigor in the absence of others (e.g., heritage tourism without historic rehabilitation or the support from the MHPTC).

Nationwide Impacts

The details of the economic effects of the $1 billion in direct spending related to historic preservation activity are contained in exhibits 6.4 and 6.5. Item 1 of Section II in exhibit 6.4 shows, for instance, that the direct effects to the nation of spending related to Missouri historic preservation activity translate into 21,237 new jobs, $363 million in income, and $568 million in GDP. The GDP/investment ratio (0.53) indicates significant levels of importing of goods and services into the state in the support of the activity. From previous chapters it is clear that this importing is primarily due to activity not related to the rehabilitation of the buildings themselves, but rather to other activities (e.g., heritage tourism). Multiplier effects add 21,117 more jobs, $715 million more in income, and $1.197 billion more in GDP. Therefore, the total economic impacts of spending related to Missouri historic preservation activity—the sum of its direct and indirect and induced effects include 42,353 new jobs (21,237 + 21,117), $1.078 billion in additional income ($363 million + $715 million), and $1.766 billion added to GDP ($569 million + $1.197 billion). In most instances, the indirect and induced effects exceed the direct effects (the traditional multipliers are greater than 2.0).

Of the total 42,353 jobs generated nationwide by Missouri activities related to historic preservation, 71 percent are concentrated in three major sectors: retail/trade (13,248 jobs or 34 percent); services (11,543 jobs or 27 percent); and manufacturing (5,299 jobs or 13 percent). These same three industries account for about 55 percent of the total labor income and GDP generated (exhibit 6.4). The lower percentage for income relative to jobs is due to the relatively lower incomes generated in the retail and service sectors. Simple division of the number of jobs into the amount of labor income generated shows that nationwide the labor income per job supporting activity related to historic preservation is $12,638 for retail trade, $21,808 for services, and $33,626 for manufacturing. Because of the concentration of jobs in retail trade and services through heritage tourism, the nation's average labor income per job generated by this activity is $25,456, substantially lower than the $33,626 average income for jobs generated through the state's historic building rehabilitation. Most of these jobs are in the higher-paying construction industry, however.

The dichotomy in job quality is similarly stark between jobs created indirectly and directly by Missouri activity related to historic preservation. Items 1 and 2 in Section II of exhibit 6.4 reveal that indirectly created jobs pay on average $33,858, while directly created jobs pay on average $17,100—a difference of $16,758 per job. Hence, the low-paying jobs that are created directly in turn generate higher-paying jobs. Some, but not all, of the pay gap between direct and indirect jobs is due to the part-time nature of the

direct jobs created in the retail trade and service industries. A finer breakdown of national economic impacts by industry (exhibit 6.5) shows that of the 11,543 jobs created in the service industries, almost half (5,165 jobs) are in the hotels/lodging category. Further, 10,048 jobs, or about 75 percent of the 13,428 retail jobs created through Missouri historic preservation, are in eating/drinking establishments. These two industries are notorious for paying low wages and offer part-time job opportunities in unusually high proportions.

An evaluation of the job productivity (GDP per job) reveals a much larger gap of $29,909 ($56,686 versus $26,777) between indirect and direct jobs supporting Missouri's activity related to historic preservation (exhibit 6.4). A major reason for that gap is that for comparable jobs, Missouri wages are much lower than for most other states. Another contributor is an even greater representation of lower-paying service-based jobs in the direct effects and higher-paying manufacturing jobs in the indirect sector.

State-Level Impacts

Exhibits 6.6 and 6.7 present the total economic effects of the $1 billion in direct historic preservation spending in-state. Item 1 in Section II of exhibit 6.6 shows that Missouri retains about 19,587 jobs or 92 percent of the direct jobs (21,237 jobs) created nationally by activity related to Missouri historic preservation. This percentage is comparable to the 87 percent of direct jobs generated by historic building rehabilitation that the state retains. Much of the spending on heritage tourism, however, goes toward items that, although purchased at retail outlets in the state, are produced outside of the state (e.g., gifts, food items, gasoline). As the result, Missouri retains a substantially lower proportion of the indirect and induced employment impacts—only about 42 percent (8,909 of 28,496 jobs).

In sum, through activity related to historic preservation, Missouri annually gains 28,496 jobs (67 percent of the total 42,353 jobs generated nationally), $582 million in income (54 percent of the $1.078 billion in income generated nationally), and $917 million in wealth (52 percent of the $1,766 million it adds to national GDP). The economic benefits of historic preservation–related activity that accrue to Missouri are concentrated primarily in the direct effects. A larger proportion of the direct jobs are in the relatively high-paying construction industry. Nevertheless, the impact of these jobs is offset by the even larger proportion of low-paying service and retail jobs. Hence, at $20,418, the average labor income per job in Missouri generated through the state's historic preservation activity is less than the average labor income per job of $25,456 that the nation gets. Jobs that Missouri gets indirectly through activity related to historic preservation, however, compare even less favorably to those which the nation receives—$28,472 per job compared to $33,858 per job.

Finer-grained detail of state impacts by industry (exhibit 6.7) reflect concentrations similar to those noted at the national level. Of the 28,496 total state-level jobs derived from historic preservation, the greatest concentrations are in eating/drinking places (9,215 jobs) and in hotels/other lodging (4,826 jobs). Of the total $582 million generated

in annual income, the eating/drinking and hotels/lodging industries garner $83 million and $62 million, respectively. The eating/drinking and hotels/lodging industries also comprise $165 million and $123 million, respectively, of the total $917 billion increase in state gross domestic product (exhibit 6.7).

RELATIVE ECONOMIC EFFECTS OF HISTORIC PRESERVATION VERSUS OTHER ACTIVITIES

Another relative issue to be considered—one that transcends the in-state/out-of-state effects of the prior section—is how preservation fares as an economic pump-primer vis-à-vis other non-preservation investments. Exhibit 6.8 shows, in side-by-side fashion, the relative economic effects of the historic rehabilitation of different types of buildings (e.g., single and multifamily) vis-à-vis new construction of the same types of buildings. It further shows, for comparative purposes, the economic effects of new highway construction. The economic impacts include total (direct and indirect/induced) income, wealth, and tax consequences per standard increment of investment ($1 million) at both the national and in-state levels.

The side-by-side comparisons in exhibit 6.8 reveal that across all building and investment types, historic preservation, in the form of historic rehabilitation, is a reasonably comparable economic pump-primer vis-à-vis new construction. One million dollars spent on historic rehabilitation, for instance, generates, at the national level, 43.4 jobs, $1,341,000 in income, and $215,000 in state and local taxes. The same $1 million spent on new nonresidential building generates nationally 40.0 jobs, $1,325,000 in income, and $187,000 in state and local taxes. The same size investment in new highway construction induces 34.1 jobs, $1,082,000 in income, and $176,000 in taxes. At the state level, $1 million spent on nonresidential historic rehabilitation generates 23.3 jobs, $719,000 in income, and $86,000 in state and local taxes. The comparable figures for the $1 million investment on new nonresidential buildings are 22.4 jobs, $632,000 in income and $73,000 in state and local taxes. The comparable new highway construction yields 20.4 jobs, $644,000 in income and $75,000 in taxes. Further, the figures in exhibit 6.8 do not include the added benefits from investment in historic rehabilitation as opposed to new construction, such as enhanced heritage tourism.

One other consideration of what comprises a “good investment” is the relative comparison of historic preservation investment versus investment in such sectors of the economy as manufacturing, publishing, and so on. On this basis, historic preservation typically has economic advantages, as illustrated in exhibit 6.9.

EXHIBIT 6.4
National Economic and Tax Impacts of Annual Missouri Historic Preservation Activity ($1.016.8 billion)

	Economic Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
I. TOTAL EFFECTS (Direct and Indirect/Induced)*			
Private			
1. Agriculture	518	8,560	33,603
2. Agri. Serv., Forestry, & Fish	378	8,639	9,546
3. Mining	307	8,985	33,203
4. Construction	4,784	158,436	187,790
5. Manufacturing	5,299	178,182	296,197
6. Transport. & Public Utilities	1,834	69,070	149,534
7. Wholesale	1,403	65,197	97,392
8. Retail Trade	13,248	167,429	280,143
9. Finance, Ins., & Real Estate	2,718	150,654	285,773
10. Services	11,543	251,731	381,733
Private Subtotal	42031	1,066,882	1,754,913
Public			
11. Government	322	11,257	10,810
Total Effects (Private and Public)	42,353	1,078,139	1,765,724
II. DISTRIBUTION OF EFFECTS/MULTIPLIER			
1. Direct Effects	21,237	363,160	568,667
2. Indirect and Induced Effects	21,117	714,979	1,197,057
3. Total Effects	42,353	1,078,139	1,765,724
4. Multipliers (3/1)	1.994	2.969	3.105
III. COMPOSITION OF GROSS STATE PRODUCT			
1. Wages—Net of Taxes			1,003,602
2. Taxes			
a. Local/State			198,878
b. Federal			
General			118,040
Insurance Trusts			85,567
Federal Subtotal			203,607
c. Total taxes (2a+2b)			402,485
3. Profits, dividends, rents, and other			359,637
4. Total Gross State Product (1+2+3)			1,765,724
EFFECTS PER MILLION DOLLARS OF INITIAL EXPENDITURE			
Employment (Jobs)			42
Income			1,060,326
Local/State Taxes			195,592
Gross State Product			1,736,550

Note: Detail may not sum to totals due to rounding.

*Terms:

Direct Effect (State)—the proportion of direct spending on goods and services produced.

Indirect Effects—the value of goods and services needed to support the provision of those direct economic effects.

Induced Effects—the value of goods and services needed by households that provide the direct and indirect labor.

EXHIBIT 6.5
National Economic Impacts (Industry Detail) of Annual Missouri Historic Preservation Activity ($1.016.8 billion)

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Agriculture	**518**	**8,560**	**33,603**
Dairy Farm Products	82	1,558	6,723
Eggs	2	43	129
Meat Animals	157	2,472	10,610
Misc. Livestock	8	151	276
Wool	1	12	54
Cotton	17	276	828
Tobacco	1	14	82
Grains & Misc. Crops	15	201	872
Feed Crops	66	1,124	4,851
Fruits & Nuts	86	1,120	4,215
Vegetables	27	584	1,556
Greenhouse & Nursery Products	16	279	1,207
Sugar Beets & Cane	6	128	407
Flaxseed, Peanuts, Soybean, Sunflower	34	598	1,793
Agri. Serv., Forestry, & Fish	**378**	**8,639**	**9,546**
Agri. Services (07)	339	7,889	7,297
Forestry (08)	29	563	1,690
Fishing, Hunting, & Trapping (09)	10	186	559
Mining	**307**	**8,985**	**33,202**
Coal Mining (12)	44	1,622	3,997
Oil & Gas Extraction (13)	151	3,482	21,152
Nonmetal Min.-Ex. Fuels (14)	100	3,454	7,191
Metal Mining (10)	13	426	862
Construction	**4,784**	**158,436**	**187,790**
General Bldg. Contractors (15)	3,148	99,665	115,662
Heavy Const. Contractors (16)	771	26,061	29,774
Special Trade Contractors (17)	864	32,709	42,354
Manufacturing	**5,299**	**178,182**	**296,197**
Chemicals & Allied Prod. (28)	378	19,419	40,217
Petroleum & Coal Prod. (29)	205	7,027	20,751
Rubber & Misc. Plastics (30)	199	6,479	8,755
Leather & Leather Prod. (31)	40	995	1,658
Stone, Clay, & Glass (32)	388	12,386	17,681
Primary Metal Prod. (33)	194	9,165	13,269
Fabricated Metal Prod. (34)	563	17,166	27,051
Machinery, Except Elec. (35)	217	8,661	11,001
Electric & Elec. Equip. (36)	289	11,509	20,462
Transportation Equipment (37)	177	8,773	13,658
Instruments & Rel. Prod. (38)	75	3,181	3,573
Misc. Manufacturing Ind's. (39)	518	11,787	19,794
Food & Kindred Prod. (20)	674	22,022	40,416
Tobacco Manufactures (21)	8	378	1,100
Textile Mill Prod. (22)	268	6,358	8,493
Apparel & Other Prod. (23)	191	4,340	5,601
Limber & Wood Prod. (24)	361	8,566	13,578
Furniture & Fixtures (25)	64	1,613	2,244
Paper & Allied Prod. (26)	185	7,731	12,235
Printing & Publishing (27)	304	10,624	14,660

EXHIBIT 6.5 (continued)
National Economic Impacts (Industry Detail) of Annual Missouri Historic Preservation Activity ($1.016.8 billion)

	Industry Component		
	Employment (jobs)	Income ($000)	Gross Domestic Product ($000)
Transport. & Public Utilities	**1,834**	**69,070**	**149,534**
Railroad Transportation (40)	139	2,379	6,540
Local Pass. Transit (41)	207	2,985	4,465
Trucking & Warehousing (42)	578	22,614	25,381
Water Transportation (44)	45	1,747	2,764
Transportation by Air (45)	133	4,685	7,780
Pipe Lines-Ex. Nat. Gas (46)	4	371	1,585
Transportation Services (47)	82	2,595	4,298
Communication (48)	319	15,487	38,056
Elec., Gas, & Sanitary Serv. (49)	328	16,207	58,666
Wholesale	**1,403**	**65,197**	**97,392**
Wholesale-Durable Goods (50)	652	37,818	49,111
Wholesale-Nondurable Goods (51)	751	27,378	48,282
Retail Trade	**13,248**	**167,429**	**280,143**
Bldg. Mat.-Garden Supply (52)	153	4,003	6,003
General Merch. Stores (53)	583	16,480	13,736
Food Stores (54)	583	11,893	15,677
Auto. Dealers-Serv. Stat. (55)	514	12,707	20,852
Apparel & Access. Stores (56)	416	6,436	9,021
Furniture & Home Furnish. (57)	107	3,668	3,648
Eating & Drinking Places (58)	10,048	91,883	183,734
Miscellaneous Retail (59)	845	20,359	27,472
Finance, Ins., & Real Estate	**2,718**	**150,654**	**285,773**
Banking (60)	366	10,956	34,401
Nondep. Credit Institut. (61)	672	43,377	45,953
Security, Comm. Brokers (62)	262	11,753	21,239
Insurance Carriers (63)	446	21,961	31,576
Ins. Agents, Brokers (64)	408	15,192	21,229
Real Estate (65)	200	13,278	96,013
Holding and Invest. Off. (67)	363	34,137	35,362
Services	**11,543**	**251,730**	**381,733**
Hotels & Other Lodging (70)	5,165	68,101	133,699
Personal Services (72)	562	14,154	15,936
Business Services (73)	1,815	45,969	66,596
Auto Repair, Serv., Garages (75)	291	6,840	16,199
Misc. Repair Services (76)	126	4,512	6,582
Motion Pictures (78)	389	8,424	10,538
Amusement & Recreation (79)	753	14,533	20,182
Health Services (80)	390	10,854	13,361
Legal Services (81)	261	13,522	20,745
Educational Services (82)	231	5,232	5,579
Social Services (83)	222	3,069	3,193
Museums, Gardens & Mem. Orgs. (84, 86)	457	11,423	11,743
Engineer. & Manage. Serv. (87)	670	34,972	43,913
Private Households (88)	0	0	0
Miscellaneous Services (89)	209	10,125	13,468
Government	**322**	**11,257**	**10,810**
Total	**42,353**	**1,078,139**	**1,765,724**

Note: Detail may not sum to totals due to rounding.

EXHIBIT 6.6
In-State Economic and Tax Impacts of Annual Missouri Historic Preservation Activity ($1.016.8 billion)

	Economic Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
I. TOTAL EFFECTS (Direct and Indirect/Induced)*			
Private			
1. Agriculture	109	803	3,295
2. Agri. Serv., Forestry, & Fish	160	3,218	2,972
3. Mining	71	2,219	4,638
4. Construction	3,773	130,228	152,253
5. Manufacturing	1,369	37,909	63,043
6. Transport. & Public Utilities	735	24,455	52,196
7. Wholesale	582	23,300	35,503
8. Retail Trade	11,565	129,833	225,097
9. Finance, Ins., & Real Estate	1,426	67,930	122,968
10. Services	8,541	156,985	250,709
Private Subtotal	28333	576,881	912,674
Public			
11. Government	163	4,948	4,657
Total Effects (Private and Public)	28,496	581,829	917,331
II. DISTRIBUTION OF EFFECTS/MULTIPLIER			
1. Direct Effects	19,587	328,172	515,132.7
2. Indirect and Induced Effects	8,909	253,657	402,199
3. Total Effects	28,496	581,829	917,331
4. Multipliers (3/1)	1.455	1.773	1.781
III. COMPOSITION OF GROSS STATE PRODUCT			
1. Wages—Net of Taxes			550,158
2. Taxes			
a. Local/State			110,625
b. Federal			
General			64,207
Insurance Trusts			45,862
Federal Subtotal			110,069
c. Total taxes (2a+2b)			220,695
3. Profits, dividends, rents, and other			146,479
4. Total Gross State Product (1+2+3)			917,331
EFFECTS PER MILLION DOLLARS OF INITIAL EXPENDITURE			
Employment (Jobs)			28.0
Income			572,215
Local/State Taxes			108,797
Gross State Product			902,175

Note: Detail may not sum to totals due to rounding.

*Terms:

Direct Effect (State)—the proportion of direct spending on goods and services produced.

Indirect Effects—the value of goods and services needed to support the provision of those direct economic effects.

Induced Effects—the value of goods and services needed by households that provide the direct and indirect labor.

EXHIBIT 6.7
In-State Economic Impacts (Industry Detail) of Annual Missouri Historic Preservation Activity ($1.016.8 billion)

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Agriculture	**109**	**803**	**3,295**
Dairy Farm Products	0	0	0
Eggs	0	5	15
Meat Animals	75	532	2,264
Misc. Livestock	0	1	1
Wool	0	0	0
Cotton	0	2	5
Tobacco	0	0	0
Grains & Misc. Crops	7	27	118
Feed Crops	5	88	379
Fruits & Nuts	16	32	122
Vegetables	1	15	15
Greenhouse & Nursery Products	3	56	242
Sugar Beets & Cane	0	0	0
Flaxseed, Peanuts, Soybean, Sunflower	2	44	133
Agri. Serv., Forestry, & Fish	**160**	**3,218**	**2,972**
Agri. Services (07)	159	3,202	2,924
Forestry (08)	1	15	46
Fishing, Hunting, & Trapping (09)	0	0	1
Mining	**71**	**2,219**	**4,638**
Coal Mining (12)	0	0	0
Oil & Gas Extraction (13)	1	11	65
Nonmetal Min.-Ex. Fuels (14)	70	2,207	4,570
Metal Mining (10)	0	2	4
Construction	**3,773**	**130,228**	**152,252**
General Bldg. Contractors (15)	2,761	89,250	103,060
Heavy Const. Contractors (16)	623	22,477	25,557
Special Trade Contractors (17)	389	18,501	23,636
Manufacturing	**1,369**	**37,909**	**63,043**
Chemicals & Allied Prod. (28)	77	3,069	6,331
Petroleum & Coal Prod. (29)	135	3,105	7,674
Rubber & Misc. Plastics (30)	17	429	580
Leather & Leather Prod. (31)	5	86	144
Stone, Clay, & Glass (32)	247	7,347	10,207
Primary Metal Prod. (33)	15	554	802
Fabricated Metal Prod. (34)	217	5,647	8,908
Machinery, Except Elec. (35)	32	968	1,232
Electric & Elec. Equip. (36)	28	853	1,535
Transportation Equipment (37)	32	1,422	2,235
Instruments & Rel. Prod. (38)	12	416	468
Misc. Manufacturing Ind's. (39)	48	801	1,384
Food & Kindred Prod. (20)	194	5,676	10,416
Tobacco Manufactures (21)	0	7	12
Textile Mill Prod. (22)	1	24	32
Apparel & Other Prod. (23)	44	683	881
Limber & Wood Prod. (24)	143	3,008	4,767
Furniture & Fixtures (25)	13	309	430
Paper & Allied Prod. (26)	22	771	1,214
Printing & Publishing (27)	89	2,733	3,792

EXHIBIT 6.7 (continued)
In-State Economic Impacts (Industry Detail) of Annual Missouri Historic Preservation Activity ($1.016.8 billion)

	Industry Component		
	Employment (jobs)	**Income ($000)**	**Gross Domestic Product ($000)**
Transport. & Public Utilities	**735**	**24,455**	**52,196**
Railroad Transportation (40)	19	624	1,716
Local Pass. Transit (41)	144	1,733	2,593
Trucking & Warehousing (42)	240	8,536	9,631
Water Transportation (44)	10	265	419
Transportation by Air (45)	39	1,275	2,118
Pipe Lines-Ex. Nat. Gas (46)	0	22	95
Transportation Services (47)	29	817	1,385
Communication (48)	137	5,701	14,070
Elec., Gas, & Sanitary Serv. (49)	116	5,481	20,168
Wholesale	**582**	**23,300**	**35,503**
Wholesale-Durable Goods (50)	238	12,016	15,604
Wholesale-Nondurable Goods (51)	344	11,284	19,899
Retail Trade	**11,565**	**129,833**	**225,097**
Bldg. Mat.-Garden Supply (52)	102	2,229	3,343
General Merch. Stores (53)	446	10,818	9,017
Food Stores (54)	426	7,446	9,815
Auto. Dealers-Serv. Stat. (55)	380	7,412	12,163
Apparel & Access. Stores (56)	304	3,844	5,387
Furniture & Home Furnish. (57)	65	1,914	1,904
Eating & Drinking Places (58)	9,215	82,584	165,139
Miscellaneous Retail (59)	627	13,586	18,329
Finance, Ins., & Real Estate	**1,426**	**67,930**	**122,968**
Banking (60)	172	5,093	15,991
Nondep. Credit Institut. (61)	395	22,115	23,428
Security, Comm. Brokers (62)	111	4,469	8,075
Insurance Carriers (63)	207	9,110	13,099
Ins. Agents, Brokers (64)	197	6,527	9,121
Real Estate (65)	92	5,149	37,231
Holding and Invest. Off. (67)	251	15,468	16,023
Services	**8,541**	**156,985**	**250,709**
Hotels & Other Lodging (70)	4,826	61,880	122,707
Personal Services (72)	376	8,319	9,315
Business Services (73)	956	21,902	31,433
Auto Repair, Serv., Garages (75)	168	3,628	8,609
Misc. Repair Services (76)	48	1,353	1,953
Motion Pictures (78)	255	3,055	3,822
Amusement & Recreation (79)	521	8,874	12,593
Health Services (80)	213	5,526	6,799
Legal Services (81)	131	6,244	9,580
Educational Services (82)	113	2,228	2,386
Social Services (83)	121	1,459	1,518
Museums, Gardens & Mem. Orgs. (84, 86)	239	5,534	5,684
Engineer. & Manage. Serv. (87)	456	22,773	28,715
Private Households (88)	0	0	0
Miscellaneous Services (89)	118	4,208	5,598
Government	**163**	**4,948**	**4,657**
Total	**28,496**	**581,829**	**917,331**

Note: Detail may not sum to totals due to rounding.

EXHIBIT 6.8

Relative Economic Effects of Historic Rehabilitation versus New Construction

Geographic Level/ Economic Effect	Construction Activity—Historic Rehabilitation and New Construction					
	Historic Rehabilitation	New Construction				
	Various Building Types	Single-Family	Multifamily	Nonresidential	Highway	Civic/ Institutional
		Effects Per Million Dollars of Initial Expenditure				
National						
Employment (jobs)	40.0	36.6	36.3	36.8	34.1	37.6
Income ($000)	$1,325	$1,125	$1,122	$1,150	$1,082	$1,166
GDP ($000)	$1,959	$1,906	$1,919	$1,931	$1,879	$1,938
State-Local Taxes ($000)	187	188	188	188	176	188
In-State						
Employment (jobs)	23.3	22.4	21.9	22.5	20.4	24.4
Income ($000)	719	632	625	655	644	705
GDP ($000)	961	882	872	917	934	980
State-Local Taxes ($000)	86	73	71	74	75	79

Source: Rutgers University, Center for Urban Policy Research, 1998.
Notes: GDP = Gross Domestic Product
GSP = Gross State Product
See appendix H for full details.

EXHIBIT 6.9
Economic Impacts Per Million Dollars of Initial Expenditure

Economic Effect	Historic Rehabilitation	Book Publishing	Aircraft Machinery Production	Chemical Production	Electronic Component Production
National					
Employment (jobs)	40.6	22.6	28.7	22.7	31.1
Income ($000)	$1,325	$778	$1,103	$828	$1,021
GDP	$1,959	$1,740	$1,977	$1,625	$1,021
State-local taxes ($000)	$117	$134	$176	$145	$169

Economic Effect	Nonresidential Historic Rehabilitation	Book Publishing	Aircraft Machinery Production	Chemical Production	Electronic Component Production
In-State					
Employment (jobs)	23.3	16.1	13.7	19.5	22.8
Income ($000)	$719	$427	$476	$446	$573
GDP	$961	$596	$668	$860	$920
State-local taxes ($000)	$86	$50	$63	$57	$61

EXHIBIT 6.10
Economic and Tax Impacts of Historic Rehabilitation Aided by the Federal Historic Rehabilitation Tax Credit
(Fiscal Year 1997—$688 million Certified Rehabilitation Investment)

	Economic Component		
	Employment (jobs)	**Wages ($000)**	**Gross Domestic Product ($000)**
I. TOTAL EFFECTS (Direct and Indirect/Induced)*			
Private			
1. Agriculture	43	$ 5,010	$ 8,316
2. Agriculture services	192	3,078	5,199
3. Mining	125	6,458	20,772
4. Construction	5,153	194,157	204,376
5. Manufacturing	4,600	175,926	241,903
6. Transport. & public utilities	1,046	49,718	91,909
7. Wholesale trade	634	26,876	74,501
8. Retail trade	3,672	67,163	76,321
9. Finance, insurance, and real estate	2,224	79,906	129,183
10. Services	4,750	142,368	157,172
Private subtotal	22,437	750,636	1,009,598
Public			
11. Government	711	11,042	10,225
Total Effects (Private and Public)	23,148	$ 761,678	$ 1,019,823
II. DISTRIBUTION OF EFFECTS/MULTIPLIER			
1. Direct effects	7,945	$ 306,053	$ 368,370
2. Indirect and induced effects	15,203	455,625	651,454
3. Total effects	23,148	$ 761,678	$ 1,019,823
4. Multipliers (3÷1)	2.914	2.489	2.768
III. COMPOSITION OF GROSS DOMESTIC PRODUCT			
1. Wages—Net of taxes			$ 689,163
2. Taxes			
a. Local			54,444
b. State			64,638
c. Federal			
General			117,280
Social Security			83,625
Federal Subtotal			200,905
d. Total taxes (2a+2b+2c)			319,987
3. Profits, dividends, rents, other			10,672
4. Total Gross Regional Product (1 + 2 + 3)			$ 1,019,823

Note: Detail may not sum to totals due to rounding.
*Terms:
Direct Effect (National)—the amount of goods and services purchased in the nation.
Indirect Effects—the value of goods and services needed to support the provision of those direct economic effects.
Induced Effects—the value of goods and services needed by households that provide the direct and indirect labor required to rehabilitate the historic structures.

APPLICATIONS OF THE FINDINGS OF THIS STUDY

As noted earlier (Chapter One), this is the most comprehensive statewide study of historic preservation's economic effects ever conducted in the United States. It also develops, in multiple instances, preservation-specific data, including "recipes" for preservation construction. The "bang for the buck" comparisons noted above are also a contribution to this field of study. But there are many other "practical" as well as policy analysis benefits from the current investigation. Some examples are noted below.

Data and Systems for the "Practical" Projection of the Economic Benefits of Historic Preservation

Others who wish to estimate the economic benefits of historic preservation can readily use the data and systems developed in this study. For instance, assume that a local Missouri historic commission wanted to project the economic benefits of $10 million of historic rehabilitation occurring in a historic district. This projection can easily be made by referring to the base data contained in this study. Exhibit 6.3 shows the employment, income, and GDP effects per $1 million of investment in historic rehabilitation. By a tenfold scaling up of the figures shown in this exhibit, the local historic commission could easily calculate that the $10 million in single-family historic district rehabilitation would generate in Missouri 233 jobs, $7.2 million in income, $9.6 million in GSP, and $860,000 in taxes.

The point of providing these data, which can readily be produced, is to inform the public and government officials that preservation makes an economic contribution. Besides improving the quality of life, preservation contributes to economic well-being. This information can allow historic preservation to be viewed not as an economic "consumer" (e.g., in the form of local property tax exemption), but as an economic "producer."

The present study, by setting forth preservation's benefits, informs policy analysis. Illustrative applications follow.

TAX INCENTIVES FOR HISTORIC PRESERVATION

Tax incentives are one of the most common inducements for historic preservation nationwide. Such an incentive allowed by the State of Missouri in the form of the Missouri Historic Preservation Tax Credit Chapter 5 in this study showed how to analyze the economic effects of the MHPTC.

A similar analysis can be effected at the national level. The Federal Preservation Tax Incentive (FPTI)—currently a 20 percent federal tax credit for historic rehabilitation of income-producing properties—is, as noted in Chapter One, the most significant federal preservation incentive. For fiscal year (FY) 1997, there were a total of $688 million in tax credit projects nationwide. Of the 902 approved projects, 45 percent involved housing, 35 percent were exclusively nonresidential (e.g., office or commercial), and 20 percent were mixed-use developments. Assuming for the moment that this project breakout equates with the dollar investment, the $688 million in historic

rehabilitation encompasses $240.8 million, $137.6 million, and $137.6 million of housing, nonresidential, and mixed-use historic rehabilitation investment, respectively.

The input–output model developed in this study is applied to these respective outlays based on the detailed construction data matrices by property type. (For mixed-use development, blended data for housing and nonresidential construction profiles are applied.) The results for the respective project categories—housing, nonresidential, and mixed use—are obtained and then summed to a national aggregate total, shown in exhibit 6.10.

In brief, the $688 million of FPTI-aided historic rehabilitation resulted in a total impact (encompassing direct and secondary impacts) of 23,148 person-years of work, $762 million in wages, and $1.020 billion in gross domestic product (GDP). As would be expected, much of the jobs, wages, and GDP are concentrated in the construction, manufacturing, and services sectors, but there are additional benefits to all sectors of the economy, as exhibit 6.10 shows.

The income and wealth created by the FPTI historic rehabilitation noted above are taxed, and the ensuing revenues are detailed in exhibit 6.10. The $688 million FPTI-aided historic rehabilitation in FY 1997 increased local taxes by $54 million and state taxes by $65 million. These include taxes on property, corporate and personal income, sales, as well as other local and state levies.

At the national level, federal taxes on personal and business income and related federal levies amounted to $117 million. (This category is termed "general federal taxes" in exhibit 6.10.) An additional $84 million was paid in federal Social Security, for a total of $201 million in federal taxes.

These figures allow comparison of FPTI "federal tax expenditures," as they are termed[3] versus revenues. In FY 1997, the tax expenditure of the FPTI was equal to 20 percent of the FPTI-aided rehabilitation of $688 million, or $138 million. But the $138 million tax expenditure induced hundreds of millions of dollars of economic activity that, in turn, generated $201 million in total federal taxes. Thus, the CUPR analysis shows that for every dollar allowed for a federal preservation tax credit, the United States Treasury received a return of $1.46 in tax revenues ($201 million tax return divided by $138 million tax expenditure).

Thus, tax incentives for historic rehabilitation, such as the FPTI, not only foster preservation but also are an important economic catalyst. Moreover, the federal tax revenues generated from the FPTI's economic pump-priming effects more than offset its federal tax expenditure.

SUMMARY

Historic preservation has come into its own in the United States only in recent decades, and clearly much remains to be done. One area is to better understand preservation's economic benefits. Work has begun to inform us in this regard (see bibliography in appendix A), and the current investigation adds to our body of knowledge.

[3]Federal tax expenditures are "costs" to the federal government in the form of taxes not collected because a tax incentive is offered.

This study has intertwined streams. It is a statewide investigation of the many ways that preservation influences a state's economy; it is one of the more extensive such statewide studies ever done. At the same time, the data and analytic tools developed here have important implications far beyond Missouri. The "recipes" of the labor and material components of historic rehabilitation allow for a more refined projection of the economic effects of such construction. The analysis of the heritage traveler gives the field a glimpse of how many such travelers there are, as well as of their socioeconomic profile and spending patterns. Insight is also afforded by knowing more about the state's Main Street Program. By bringing these different components together, their interconnectedness can be better appreciated. The current study also shows how a state tax credit can be examined in the form of the MHPTC.

The present investigation also brings forth a powerful economic tool in the form of the Preservation Economic Impact Model (PEIM) input–output model. Preservationists should be more aware of input–output analysis, and the RSRC's model is one of the better applications in this regard, especially when it is calibrated with the preservation-specific data developed for this study. This model can be used at various levels: the more technical-minded should consult appendix B; those less concerned about the internal "black box" can readily just use the base figures summarized in exhibits 6.3, 6.8, and 6.9.

It is hoped that this study will contribute to the continued study of, and dialogue on, the economic effects of historic preservation in Missouri and the nation.

APPENDIX A: BIBLIOGRAPHY

The Economic Impact of Historic Preservation

1. Sources
2. Annotations of Selected Studies

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Advisory Council on Historic Preservation. 1979. *The Contribution of Historic Preservation to Urban Revitalization.* Washington, D.C.: U.S. Government Printing Office, January. Report prepared by Booz, Allen and Hamilton, Inc.

> This study investigates the effect of historic preservation activities in Alexandria (Virginia), Galveston (Texas), Savannah (Georgia), and Seattle (Washington). Included in the analysis is an examination of the physical, economic, and social changes occurring within historic neighborhoods in each of these cities. According to the study, historic designation and attendant preservation activities provide many benefits, including saving important properties from demolition, assuring compatible new construction and land uses, and providing a concentrated area of interest to attract tourists and metropolitan-area visitors. Designation also has the beneficial effect of strengthening property values—an impact documented by comparing the selling prices of buildings located inside versus outside the historic districts.

Cloud, Jack M. 1976. "Appraisal of Historic Homes." *The Real Estate Appraiser* (September-October): 44-47.

> Difficulties of appraising historic homes are highlighted. To illustrate, appraisal assumes that the improvements on land are depreciating assets. In the historic context, however, the home represents "heritage" and therefore is not assumed to lose value. The article suggests three approaches to ascertaining value, all modifications of the traditional cost, market, and income approaches.
>
> A modified cost methodology is recommended based on the following factors: (1) cost on a unit basis of an equally "historically desirable" dwelling in approximately the same physical condition (including site); (2) the average unit cost of an acceptable renovation and/or restoration; (3) less the estimated incurable physical deterioration; (4) plus the value of land and site improvements.
>
> A second strategy uses a modified market approach. Value is determined by adjusting recent nearby "arm's-length" sales. This approach is commonly used in appraisal, but implementation in the historical context requires a number of special emphases. The temporal definition of "recent" sales has to be extended for the appraiser to obtain enough "comps" of historic homes—required because there are relatively few sales of historic properties. Second, and for similar reasons, the appraiser has to consider "comps" over a larger geographical area. Third, the appraiser must be careful to examine only arm's length transfers—donations of properties to private historical societies would not be included. Fourth, the appraiser must carefully adjust the "comps" for "historical value"—which encompasses such considerations as type of architecture, historical significance of the owner/builder, and so on. Fifth, the "comps" will have to be adjusted by considering required restoration/renovation costs as well as the amount and value of land in each transaction.

A third strategy for determining the value of the historic homes is to use an income approach. The article cautions that utilizing this method is "basically dangerous" since it is often based on hypothetical situations that may or may not be possible or probable.

Costonis, John J. 1974. *Space Adrift: Saving Urban Landmarks Through the Chicago Plan.* Urbana: University of Illinois Press.

This monograph analyzes the transfer of development rights as a mechanism for preserving historic properties. As part of its overall analysis, it considers the impact of landmark restrictions on property value as well as the assessment of landmarks for tax purposes.

Chapter three discusses the cost of historic preservation restrictions—a measure termed "damages." Damages are determined by subtracting a landmark's present value from its fair-market value in the absence of designation. These "before and after" values are estimated by the income approach of appraisal. Other traditional appraisal methods are not so applicable. Applying the cost technique is problematical because it requires precise estimates of physical decline and functional obsolescence—factors inherently difficult to define in a landmark situation. Low sales frequency of landmarks often renders the market approach inappropriate.

Appendix four examines the relationship between landmarks and the property tax. It examines both the principles and practice of real estate taxation, notes how and when landmarks may be penalized by prejudicial assessment, and discusses "intergovernmental agreement" and other strategies for improving the equity of a landmark's assessment/taxation.

Economics Research Associates. 1980. *Economic Impact of the Multiple Resource Nomination to the National Register of Historic Places of the St. Louis Central Business District.* Report prepared for the St. Louis Community Development Agency. Boston: Economics Research Associates.

The ERA study examines the economic effect of designating the St. Louis central business district by: (1) considering the impact of comparable designation activity in Seattle (Pioneer Square), New Orleans (Vieux Carre), Savannah (Historic District), and other jurisdictions; and (2) evaluating the anticipated effect of historic status on numerous prototypical buildings located in the St. Louis CBD. The consultants conclude that designating the St. Louis CBD would have both positive and negative economic impacts, and that the overall effect would depend on such variables as: (1) the applicability/continuation of federal landmark income tax incentives; (2) the type/extent of designation; and (3) future demand for CBD locations.

Gale, Dennis. n.d. *The impact of historic district designation in Washington, DC.* Occasional Paper No. 6. Center for Washington Area Studies, Washington, DC. This

paper examines the impact of historical preservation on property prices and values in order to determine if historic preservation does result in the displacement of the current population. The study compares three neighborhood both before and after historic designation. It also compares these three neighborhoods with three nondesignated neighborhoods. The study found that there was no increase in rated growth of assessments in the pre- and post-preservation periods. Second, there was not much difference in property value between the districts designated as historic districts and those that were not, out of proportion to the general economic conditions at a city level. The study did, however, recognize two problems: it did not control for the time of designation; and distortions may be caused by the federal income tax code.

Government Finance Officers Association, 1991a. *The Economic Benefits of Preserving Community Character: Fredericksburg, Virginia.*

Utilizing the methodology described in *The Economic Benefits of Preserving Community Character: A Practical Methodology* (Liethe, Muller, Petersen, and Robinson), the report examines the economic rewards gained as a result of efforts made to preserve the historic nature of the city and by providing incentives to merchants and residents to remain there. Currently, downtown Fredericksburg is made up of 350 buildings built prior to 1870 and seven 18th century homes and museums open to the public. In order to thwart the exodus of businesses and residents to suburban areas, city officials implemented several bold initiatives. They moved the visitor's center to the heart of the historic district and publicized a walking tour of significant homes and buildings. They enacted a tax exempt program designed to attract the rehabilitation of historic properties by abating from taxation a portion of the increase value over a six-year period. The city made esthetic improvements to the downtown area that included burial of overhead utility wires, implementation of historically accurate streetscaping, and improvements in traffic patterns and parking. The city also implemented the Facade Improvement Grant Program to entice shop owners to improve the appearance of their storefronts. Further, re-zoning of the downtown area to allow apartments above commercial establishments encouraged residential living. The study examined the economic benefits realized from these efforts by looking at construction activity, property values, and revenues from tourism. Construction activity provided important short-term benefits via employment of local workers, the purchase of materials from local business, and the spending of wages in the Fredericksburg area. Over an eight-year period, 777 projects totaling $12.7 million were undertaken in the historic district. These projects created approximately 293 construction jobs and approximately 284 jobs in sales and manufacturing. Area governments reaped $33,442 in building permit fee revenues, while the city accrued $243,729 in locally distributed sales tax revenues. Property values, both residential and commercial, experienced a dramatic increase. Between 1971 and 1990, residential property values in the historic district increased an average of 674% as compared to a 410% average increase in properties located elsewhere in the city. Commercial properties within the district rose an average of 480% compared to an increase of an average of 281% for other commercial properties. The study

conducted a survey of downtown merchants as well as a telephone survey to estimate the amount of money coming into the city as a result of meals, lodging, and shopping. It estimates that in 1989 alone $11.7 million in tourist purchases were made within the historic district and another $17.4 million were made outside the district, with secondary impacts resulting in $13.8 million. The fiscal benefits to the city as a result of tourism and sales are estimated at $1,128,060 ($487,200 in meals and lodging, $582,600 in state sales tax, and $58,260 from business and occupational license tax).

Government Finance Officers Association, 1991b. *The Economic Benefits of Preserving Community Character: Galveston, Texas.* In the early 1980s the Galveston Historical Foundation took several measures to assist owners of historic properties, including a revolving fund, design and rehabilitation advice, and a paint partnership program. The city also dedicated one cent of the hotel/motel bed tax to historic preservation by establishing tax reinvestment zones throughout the city. Utilizing the methodology described in *The Economic Benefits of Preserving Community Character: A Practical Methodology* (Liethe, Muller, Petersen, and Robinson), the report estimates the economic benefits to the private sector (property owners and retail merchants) as well as the fiscal benefits gained by the city of Galveston. These assessments were made with respect to construction activity, property values, and commercial activity. Construction activity created jobs in construction labor, retail (the sale of construction supplies), manufacturing, and induced jobs by virtue of the workers spending money in the area. Building permit data indicate that over a 20-year period 1,165 construction jobs, 86 manufacturing/sales jobs, and 874 induced jobs were created. The jobs produced $44.1 million in salary income, while the fiscal benefits to the city were $274,943 in sales tax revenues and $63,727 in building permit fees. Over a 16-year period residential sales prices in the historic district rose by an average of 440% and commercial sales prices rose an average of 165%. It is estimated that, from July 1989 to June 1990, tourists visiting the historic district spent approximately $18 million and that the multiplier effects totaled $29.1 million in sales and $2.7 million in wages. The state gained approximately $1.1 million from sales tax, while the city of Galveston earned about $0.5 million.

Johnson, Daniel G., and Jay Sullivan. 1992. *Economic Impacts of Civil War Battlefield Preservation: An Ex Ante Evaluation.* Unpublished paper. Virginia Polytechnical Institute. Blackburn, Virginia. The authors attempt to predict the economic impact of war battlefield preservation before it is established. The methodological basis for this evaluation is a cost benefit analysis. The analysis includes foregone and projected benefits in the equation. The authors conclude that battleparks can generate important impacts for local economic development. Further, that battlefield preservation compares well with agricultural production in terms of income and employment. The benefits are, however, concentrated in the service sector.

Kilpatrick, John A. 1995. “The Impact of Historic Designation in Columbia, South Carolina.” Study prepared for the South Carolina State Historic Preservation Office.

This study examined actual sales transactions (as opposed to assessments for property tax purposes) in historic neighborhoods (two nationally and locally designated districts) in Columbia, South Carolina from early 1983 to mid-1995. Sales data were collected on all homes within the historic areas that had sold at least twice during the 1983 to 1995 period. Using prices and times between the sales, the study developed an index of house price appreciation within the historic district. A comparable index of price appreciation was developed in parallel for the market as a whole. Comparing these two indices, the study found that "historic properties have an average rate of return higher than [that of] the Columbia market as a whole. The price differential in the historic districts was almost 25 percent greater than the overall community.

Leithe, Joni L., with Thomas Muller, John E. Petersen and Susan Robinson. 1991. *The Economic Benefits of Preserving Community Character: A Methodology.* Chicago: Government Finance Research Center of the Government Finance Officers Association.

This study examines the consequences of preservation regulations and incentives on a community's economy and their effects on a local government's fiscal condition. It provides an easy-to-use workbook, complete with sample tables, worksheets and survey forms, and explains how a community can measure economic activity in three broad areas: construction and rehabilitation activity, real estate activity, and commercial activity.

- *Construction and Rehabilitation Activity.* To the extent that community preservation techniques stimulate the rehabilitation of property, economic benefits associated with rehabilitation construction activity itself can be documented.
- *Real Estate Market Activity.* The effect of community preservation on the overall local real estate market as a result of designation or incentive programs can be measured (whether or not directly related to rehabilitation activity).
- *Commercial Activity.* The stimulation or retention of businesses in areas that have been designated or protected or granted incentives and the resulting impact on local economic activity, such as retail sales and the number of business created, can be measured.

Lane, Bob. 1982. *The Cash Value of Civil War Nostalgia: A Statistical Overview of the Fredericksburg Park.* A report for Virginia County, Virginia argues that national parks based on civil war nostalgia suffer from an inherent contradiction. On the one hand they have been viewed as 'priceless historic jewels handed down from generation to generation, and to which no value can be assigned'; on the other hand they can be viewed as a continuing stream of cash, alternately contributing to the surrounding economy but also costing 'something' in lost taxes. Lane attempts to analyze the second viewpoint through a cost benefit analysis of the Fredericksburg and Spotsylvania National Park. Through his analysis of lost taxes vs. direct and indirect benefits Lane concludes that the historic sites in question contribute more to the surrounding economy than they take away.

National Trust for Historic Preservation. 1982. *Economic Benefits of Preserving Old Buildings.* Washington, DC: Preservation Press. This publication is the result of a conference held in Seattle to discuss historic preservation and the financial incentives of that process. The aim of the conference was to bring clearly into focus the successful record of the historic preservation process, including the benefits of recycling old buildings. The following topics were covered at the conference. Section one discusses possible municipal actions in the preservation process. The hidden assets of old buildings and continuing and adaptive uses for old buildings form the second and third sections of the publication. Section four discusses the costs of preservation, while section five outlines the types of government grants available for the preservation process. Sections six and seven discuss the advantages of historic preservation from a private financiers viewpoint.

National Trust for Historic Preservation. 1977.Values of residential properties in urban historic districts: Georgetown, Washington, D.C. and other selected districts." *Information: From the National Trust for Historic Preservation.* Washington, D.C.: Preservation Press. Study authored by John B. Rackham.

This research paper compares property values in a historic district (Georgetown in Washington, D.C.) to those outside this neighborhood. Property values in Society Hill (Philadelphia) and other historic districts are also briefly noted. Side-by-side comparison indicates that historic status increases property value. In the words of the study, "The imposition of historic district controls in an area, complemented by the general recognition that they have been appropriately placed, results in the following pattern of residential property demand and value: available quality housing in reasonable condition within the district is marketed readily at increasing price levels; existing housing in poorer condition is acquired—often by developers—and renovated; and land for building sites, if available, is obtained and improved in conformance with architectural controls."

Assessment/property-tax implications resulting from the property value appreciation within the historic neighborhoods are also considered. Various assessment strategies to alleviate inequitable landmark property taxation are reviewed, such as assessment at current use. The District of Columbia's efforts in this regard are highlighted.

New Jersey Historic Trust. 1990. *Historic Preservation Capital Needs Survey.* New Jersey: New Jersey Historic Trust. The survey examines the capital needs of historic properties throughout New Jersey. The survey showed a capital need of $400 million for historic preservation. This, however, is a conservative estimate the study was a survey and was directed only at properties that met the eligibility criteria established by the bond act, i.e., properties owned or operated by public or not for profit agencies. Apart from the findings of the survey, the study also provides some useful information on historic resources in New Jersey, the importance of historic

preservation and historic tourism for economic development, and case studies of successful preservation.

Preservation Alliance of Virginia. 1996. "Virginia's Economy and Historic Preservation: The Impact of Preservation on Jobs, Business, and Community." Staunton, Virginia.

As part of a larger study of preservation's economic effects, the analysis cited cases of property values increasing relatively faster in historic versus nonhistoric areas. Examples cited included:

Fredericksburg. "Properties within Fredericksburg's historic district gained appreciably more in value over the last twenty years than properties located elsewhere in the city."

Richmond. "While assessments in the Shockoe Ship historic area appreciated by 245 percent between 1980 and 1990, the city's overall value of real estate increased by 8.9 percent."

Staunton. "Between 1987 and 1995, residential properties in Staunton's historic neighborhoods appreciated by 52 to 66 percent compared to a city-wide average residential appreciation of 51 percent. For commercial properties the average city-wide appreciation between 1987 and 1995 was 25 percent. By contrast, average rates of appreciation of commercial properties in historic districts ranged from 28 to 256 percent.

Robinson, Susan G. 1988/89. "The effectiveness and fiscal impact of tax incentives for historic preservation." *Preservation Forum* 2, 4 (Winter): 8–13. The study argues that the success of historic preservation depends on financial considerations; thus, before any program is undertaken, the fiscal impacts of the program should be examined. The study provides a methodology that a local government can use to assess the impacts of preservation. It does so by providing guidance for the evaluation of the effects of certain incentives programs based on the experience of Atlanta. The study examines the following incentives for historic preservation: compensation, protection, land use planning, the impact of federal tax credits, state and local tax incentive programs, property abasement tax, property tax, sales tax exemption, individual tax vs. cost to the city, and public sector benefits vs. costs.

Reynolds, Judith and Anthony Reynolds. 1976. "Factors Affecting Valuation of Historic Properties." *Information: From the National Trust for Historic Preservation.* Washington, D.C.: Preservation Press.

This paper presents an appraisal process for valuing landmarks. It notes the importance of proceeding in a step-by-step process that includes definition of the appraisal problem; identification of the property's environment and physical and historical characteristics; examination of alternative uses, including the actual use;

collection of data; and estimating value through one or more accepted appraisal approaches.

The paper stresses the importance of considering the "variable characteristics" of the landmark, including site features, improvement level/type, historical significance, as well as the "qualifications" for highest and best use. These characteristics must be examined on a case-by-case basis. In the words of the authors, the "highest and best use of a property with significant historical association or character, if the property is located in a complementary environment and its physical integrity is high, may include preservation or restoration; for historical properties of lesser significance, the highest and best use may be preservation through adaptive use such as conversion of a dwelling to a law office; finally, if the aspects of physical integrity, functional utility and environment are insufficient to warrant preservation, then the highest economic use may be demolition of the structure."

Rypkema, Donovan D. *The Economics of Historic Preservation.* Washington, D.C.: National Trust for Historic Preservation, 1994.

Among other economic impacts, Rypkema examines the effects of designation and preservation activity on property values. Rypkema compiles the results from numerous studies. Examples from Rykema are cited below.

> In every heritage district designated in Canada in the last 20 years, property values have risen, despite the fact that development potential has been reduced.
> (Federal Heritage Buildings Review Office Code of Practice, Government of Canada)

> Therefore, it would seem reasonable that, at worst, the listing of property on either of the two registers would have no effect on value, but most likely, at least in the City of Norfolk, such listing would enhance value. (Wayne N. Trout, Real Estate Assessor, City of Norfolk, cited in: *The Financial Impact of Historic Designation*)

> The virtually unanimous response from local assessors and commissioners of the revenue has been that no loss of assessed value has occurred as a result of historic designation, and that values have risen in general accord with the values of surrounding properties over the years. (*The Financial Impact of Historic Designation*)

> Generally, the assessed values have risen at a rate similar to all other properties. As such, we have no evidence that the listing of a property in either the National Register of Historic Places or the Virginia Landmarks Register adversely influences the assessed value relative to surrounding and/or similar properties. (John Cunningham, Manager of Assessments, Prince William County, cited in *The Financial Impact of Historic Designation*)

> The appreciation of renovated historic properties is substantially greater than the appreciation rates for new construction and unrestored historic properties. . . Unrestored historic properties appreciate at almost identical rates to new construction over the same period. (Kim Chen, *The Importance of Historic Preservation in Downtown Richmond: Franklin Street, A Case Study*)

Sanderson, Edward F. 1994. *Economic Effects of Historic Preservation in Rhode Island*. The Journal of the National Trust for Historic Preservation. Sanderson reviews a study completed by the University of Rhode Island Intergovernmental Policy Analysis Program. The purpose of that study was to calculate the direct, indirect, and induced effects of historic preservation programs that were implemented by the Rhode Island Historical Preservation Commission from 1971 to 1993. Sanderson notes that the Preservation Commission showed $240 million in expenditures since 1971, and projects that qualified for federal tax credits accounted for about 80% of this total. Further, he notes that when federal, state, local and private funds are taken into account, it represents a 9:1 leveraging ratio of private investment to all sources of public expenditure. He concludes that the economic impact reported in the study significantly understated the real economic benefits of historic preservation. His supporting evidence is as follows. Of the $240 million for goods and services expended since 1971, approximately $186 million (78%) went to purchase goods and services in Rhode Island. These historic preservation expenditures resulted in a increase in "value added" in Rhode Island of $232 million. (Value added measures regional output in the same sense that gross domestic product measures national output). Over a twenty-year period, historic preservation created at least 10,722 person-years of employment. (A person-year is defined as one person employed full time for one year). Each $10 million in expenditures created 285 jobs in Rhode Island. These jobs included construction, services, retail, manufacturing, finance, and real estate. Federal tax revenue increased by $64 million, state coffers received $13.5 million, and local tax collectors received $8.1 million. Federal tax credits for rehabilitation of income-producing historic buildings totaled 266 tax credit projects with a cumulative value of $211.5 million. Of these properties, 111 provide space for economically beneficial offices, manufacturing, and retail.

Scribner, David, Jr. 1976. "Historic Districts as an Economic Asset to Cities." *The Real Estate Appraiser* (May-June), pp. 7-12.

> This article examines how historic districts in major urban areas are delineated, and also considers the impact of designation on city revitalization. It notes that the property values of buildings within historic areas are higher than sister structures located outside of such neighborhoods. In the Old Town area of Virginia, landmarks are worth approximately 2.5 times comparable buildings located just beyond the boundaries of this historic district. In Capitol Hill in Washington, D.C., values are four times greater; in the Federal Hill area in Baltimore, values are 7.5 times higher. The author argues that the linkage between property value and historic designation

should be recognized by appraisers, and recommends that appraisers rethink some of their rules of thumb that are inapplicable in landmark situations.

University of Rhode Island, Intergovernmental Policy Analysis Program. 1993. *Economic Effects of the Rhode Island Historical Preservation Commission Program Expenditures from 1971 to 1993.* The study reviews the impacts of the Rhode Island Historical Preservation Commission's programs on the state economy in the areas of employment, wages, valued added, and tax revenues generated since 1971. It does not, however, assess the cultural value of historic preservation or the degree to which the preservation of historical landmarks contributes to the overall attraction of tourists. The study uses computer models of the state economy to conduct a full economic impact analysis for each of the Commission's programs. These programs are compared to other types of public construction that supply economic stimulus and/or improve public infrastructure. Findings indicate that the greatest impacts of the Commission's programs are in the construction-related industries, with retail sales and the service industries being strong contributors. Dollar for dollar, historic preservation programs generate approximately the same number of jobs as some other construction and maintenance programs. Notably, about 93.4% of the funding for the Commission's programs have come from matching federal funds and tax credits thereby, yielding approximately $1.50 dollars in state tax revenues for each dollar spent.

Walter, Jackson J. 1987. *Historic preservation and places to live: A natural partnership for healthy American communities.* Speech before the Policy Advisory Board, of the Joint Center for Housing Studies of MIT and Harvard University. Pebble Beach California. Walter argues that historic preservation can also play an important role in the preservation and provision of inner city housing. It is also an important component in the revitalization of the cities, not only economically, but also culturally. However, in order for cities to take advantage of their heritage, leadership and creativity are needed.

Wilcoxon, Sandra K. 1991. *Historic House Museums: Impacting Local Economies*. Historic Preservation Forum. Utilizing a written questionnaire administered four times throughout the year, the Frank Lloyd Wright Home and Studio Foundation in Oak Park, Illinois attempted to assess the direct and indirect economic impact of the home and studio on the local and greater metropolitan areas. The survey addressed the following: restaurants and hotels patronized, amount spent per person on meals, transportation method, and visitors' plans to shop in the area. An analysis of direct spending found that of the home and studios' $1.6 million dollar operating budget, 36% was spent in the local area, 37% in Chicago, and 27% in other parts of the United States. Indirect spending was calculated using a tourism multiplier of 6 and a wage multiplier of 1.4 for employee salaries. By applying the multipliers to direct spending figures it was calculated that the impact of the home and studio and its visitors and employees on the Chicago area accounts for $21.4 million. Combining direct and indirect spending yields totals of $26.4 million impact on the greater

Chicago area and $5.5 million on the village of Oak Park. Using an employment multiplier that states each $1 million in direct spending creates 39 new jobs, it is calculated that the home and studio has created 47 jobs in Oak Park and 133 jobs in Chicago. Counting their own employees, this totals 204 jobs.

Wonjo, Christopher T. 1991. "Historic preservation and economic development." *Journal of Planning Literature* 15, 3 (February): 296-307. Wonjo argues that historic preservation and economic development are two tools that can be used in the revitalization of failing cities. He points out that recent economic developments have often included aspects of historic preservation, and that the two jointly seek to improve city conditions, as well as conditions within communities. Wonjo then examines the history of federal involvement in preservation from the 1906 Antiquities Act until the NHPA of 1966 and the 1986 tax code incentives. He argues that the changes in the 1986 tax code were a response to flaws in the NHPA of 1966 that protected only federally owned sites and lacked an implementation capacity. Wonjo also examines local and state incentives for historic preservation, as well as the question of how planners can contribute to historic preservation efforts.

Historic Preservation Program. 1997. *Preservation Horizons: A Plan for Historic Preservation in Missouri.* Missouri Department of Natural Resources. This document is a general overview for the State of Missouri, on how the state would like to create and stimulate public and private interest, funding, policies and planning strategies for historic preservation. The greater emphasis states how heritage tourism and economic development are byproducts of historic preservation programs and cultural resources. Tourism is Missouri's second most important industry, therefore, special consideration should be placed on all organizations, of the local, state or federal level, which promote historic-related tourism. Although the document is broad in nature, more narrowly defined goals include: encouraging public-private partnerships; creating historic preservation education opportunities for public officials; and stimulating historic preservation interest through internet sites published by local and state organizations. In summary, the State of Missouri hopes to integrate historic preservation into all planning and policy procedures.

"Preservation Plan Task Force Reports." Jefferson City, MO: Department of Natural Resources, Historic Preservation Program, 1996. Photocopy. This report outlines 5 areas of historic preservation goals and strategies: public education; funding and financial issues; public/private partnerships and interaction between all levels of government; preservation policies and planning; and delivery of preservation services. There is a heavy emphasis on establishing historic preservation as an economic development policy. The Task Force Report highlights that historic preservation equates good business, because it produces both revenue and employment. Several action plans are addressed in order to implement these various goals. Identifying beneficial stakeholders, improving information access to the public via electronic files, removal of disincentives to

property owners, and fundraising are all addressed in the implementation procedures.

Grace, Karen. Historic Preservation Program. 1992. *Annual Report*. Missouri Department of Natural Resources. The Historic Preservation Program (HPP), which resides in the Missouri State Historic Preservation Office (SHPO), produced this document. It is an introduction to the efforts and initiatives the HPP actively follows. The document reports on the Historic Preservation Revolving Fund, where the Dept. of Natural Resources actively markets properties to buyers that are able to uphold the tasks of preservation. The Endangered Buildings Evaluation Team was established in 1992, specifically to make recommendations of potential new uses for endangered buildings' conditions. Several other standard programs within the HPP include the Preservation Education Program; Statewide Survey; and the Cultural Resource Inventory (CRI). Other programs include the Main Street Program, promoting preservation and economic revitalization through Missouri's small, historic commercial districts; and the Certified Local Government Program, assisting local level partners to establish and maintain historic preservation programs. The SHPO also utilizes investment tax credits as a means to stimulate private investment from federal tax incentives. In 1992, Missouri ranked in the top 2% in its use of investment tax credits.

Missouri Department of Economic Development, Missouri Main Street Program. October 1990. *Missouri Main Street Program: Guide to Resources for Downtown Revitalization*. Jefferson City, MO. Through a collection of summaries, the Missouri Main Street Program identifies several different resources that will assist citizens in downtown revitalization efforts. The document contains contact information and brief service descriptions for numerous government agencies, university centers, business associations and non-profit organizations. Some agencies provide management training specifically, while others provide information on funding, media relations, fundraising tools, and technical assistance.

Historic Tax Credit Program. January 1999. *Missouri Historic Preservation Tax Credit Program.* Department of Economic Development. The Department of Economic Development is responsible for issuing historic preservation tax credits. Therefore, a general information document was produced to explain key definitions, specific requirements, as well as an explanation of the two approval processes. In addition, two historic tax credit forms are attached. In the appendix of the document, the Secretary of Interior's Standards for Rehabilitation is outlined, listing special concerns and documentation requirements.

Historic Preservation Program and Community Development Division. March 1999. *Federal and Missouri State Investment Tax Credits for Certified Rehabilitation of Historic Buildings--A Comparison.* Missouri Department of Natural Resources and Missouri Department of Economic Development. This brief, 6-paged chart is

constructed in a 'question-and-answer' style. The questions are followed with individual answers, concerning both federal credit and state credit.

Missouri Alliance for Historic Preservation. February 1997. *Proposed State of Missouri Historic Rehabilitation Investment Tax Credit: Analysis of Costs and Benefits.* The executive summary begins by stating that this proposal is merely a starting point of a methodology, which will aid in preparing future fiscal analyses. Methodologies were summarized for estimating the state cost of the proposed historic rehabilitation tax credit, as well as for estimating fiscal benefits created by the proposed historic rehabilitation tax credit. In the executive summary, the proposal estimated specific results. For instance, between 1998 and 2003, an additional $200 million in historic rehabilitation activity, will be created. Also, 3,400 construction jobs and 3,800 other jobs will be produced over the next six years. Other proposed results include economic and political benefits at all government levels. The summary includes multiple charts on cost/benefit analyses of the proposed Missouri historic rehabilitation tax credit.

The St. Louis Urban Investment Task Force. September 1985. *The Impact of the Investment Tax Credit on Neighborhood, Commercial, and Downtown Development and Historic Preservation in St. Louis.* The St. Louis Urban Investment Task Force. The purpose of this report is to prove the significance of the Investment Tax Credit (ITC), its role as a development tool within the metropolitan region of St. Louis, and more importantly, to highlight St. Louis' rank as the first in the nation in the number of projects qualified for historic preservation tax credits. The document explains the philosophy of the ITC, as well as the significance of the ITC in St. Louis. The concerns over the possible loss of the ITC is discussed in depth, as one example describes an analysis "with" and "without" the ITC in residential rental rates. A map of historic rehabilitation activity for the City of St. Louis, as well as various charts and graphs are attached.

Kaylen, Michael. March 1999. *Economic Impact of Missouri's Tourism and Travel Industry: Annual Report.* MU-Tourism Research and Development Center. Columbia, MO. The purpose of this document is to calculate economic impacts of MO travel and tourism for the fiscal years of 1995 through 1998. The analysis is broken into two stages. The first stage estimates economic expenditures from travelers (1) while at destination, (2) while in transit, and (3) oriented with international tourism. The second stage utilizes an input-output model to estimate effects on MO's economy. Direct and multiplier effects of MO's tourism is shown in this report to have a significant impact on the state's economy. This report also describes various economic impacts through extensive charts and graphs.

Certec, Inc. June 1997. *Economic Impact of Missouri's Tourism and Travel: 1995 and 1996*. Frankfort, KY. Through the Certec Model and an input-output model, this report quantifies tourism impacts at state and local levels, and estimates the indirect effects of tourism dollars. The data and methods used are explained in

detail. Wages and employment created by travel in MO are catalogued. The various appendices list MO's attractions and attendance figures for 1995 and 1996.

National Trust for Historic Preservation Flood Response Program, O'Conner & Partners, Inc. October 1994. *Katy Trail State Park, MO: Tourism Assessment and Marketing Recommendations for Flood Recovery.* This report focuses on six small towns along Katy Trail State Park, however, it is designed to assist all Park corridor communities. The primary focus is increasing the tourism-based economy in this region, as it relates to the Park. The first goal/strategy includes creating new facilities to accommodate Trail users. The second goal/strategy, discussed in heavier detail, utilizes marketing as a means to bring new visitors into the corridor communities. The Park has many natural marketing assets as a heritage tourism region, as a bicycle destination, and through its proximity to wine regions. The visitor profile research also assists the Park in reaching its marketing goals.

APPENDIX B

Input-Output Analysis:
Technical Description and Application

The Preservation Economic Impact Model (PEIM) is based on the R/Econ I-O Model. This appendix discusses the history and application of input-output analysis and details the input-output model, called the R/Econ I–O model, developed by Rutgers University. This model offers significant advantages in detailing the total economic effects of an activity (such as historic rehabilitation and heritage tourism), including multiplier effects.

ESTIMATING MULTIPLIERS

The fundamental issue determining the size of the multiplier effect is the "openness" of regional economies. Regions that are more "open" are those that import their required inputs from other regions. Imports can be thought of as substitutes for local production. Thus, the more a region depends on imported goods and services instead of its own production, the more economic activity leaks away from the local economy. Businessmen noted this phenomenon and formed local chambers of commerce with the explicit goal of stopping such leakage by instituting a "buy local" policy among their membership. In addition, during the 1970s, as an import invasion was under way, businessmen and union leaders announced a "buy American" policy in the hope of regaining ground lost to international economic competition. Therefore, one of the main goals of regional economic multiplier research has been to discover better ways to estimate the leakage of purchases out of a region or, relatedly, to determine the region's level of self-sufficiency.

The earliest attempts to systematize the procedure for estimating multiplier effects used the economic base model, still in use in many econometric models today. This approach assumes that all economic activities in a region can be divided into two categories: "basic" activities that produce exclusively for export, and region-serving or "local" activities that produce strictly for internal regional consumption. Since this approach is simpler but similar to the approach used by regional input-output analysis, let us explain briefly how multiplier effects are estimated using the economic base approach. If we let **x** be export employment, **l** be local employment, and **t** be total employment, then

$$\mathbf{t} = \mathbf{x} + \mathbf{l}$$

For simplification, we create the ratio **a** as

$$\mathbf{a} = \mathbf{l}/\mathbf{t}$$

so that $\mathbf{l} = \mathbf{at}$

then substituting into the first equation, we obtain

$$\mathbf{t} = \mathbf{x} + \mathbf{at}$$

By bringing all of the terms with t to one side of the equation, we get

$$\mathbf{t} - \mathbf{at} = \mathbf{x} \text{ or } \mathbf{t}\,(1-\mathbf{a}) = \mathbf{x}$$

Solving for **t,** we get $\mathbf{t} = \mathbf{x}/(1-\mathbf{a})$

Thus, if we know the amount of export-oriented employment, **x,** and the ratio of local to total employment, **a**, we can readily calculate total employment by applying the economic base multiplier, 1/(1-**a**), which is embedded in the above formula. Thus, if 40 percent of all regional employment is used to produce exports, the regional multiplier would be 2.5. The assumption behind this multiplier is that all remaining regional employment is required to support the export employment. Thus, the 2.5 can be decomposed into two parts the direct effect of the exports, which is always 1.0, and the indirect and induced effects, which is the remainder—in this case 1.5. Hence, the multiplier can be read as telling us that for each export-oriented job another 1.5 jobs are needed to support it.

This notion of the multiplier has been extended so that **x** is understood to represent an economic change demanded by an organization or institution outside of an economy—so-called final demand. Such changes can be those effected by government, households, or even by an outside firm. Changes in the economy can therefore be calculated by a minor alteration in the multiplier formula:

$$\mathbf{\Delta t} = \mathbf{\Delta x}/(1-\mathbf{a})$$

The high level of industry aggregation and the rigidity of the economic assumptions that permit the application of the economic base multiplier have caused this approach to be subject to extensive criticism. Most of the discussion has focused on the estimation of the parameter **a**. Estimating this parameter requires that one be able to distinguish those parts of the economy that produce for local consumption from those that do not. Indeed, virtually all industries, even services, sell to customers both inside and outside the region. As a result, regional economists devised an approach by which to measure the *degree* to which each industry is involved in the nonbase activities of the region, better known as the industry's *regional purchase coefficient*. Thus, they expanded the above formulations by calculating for each ***i*** industry

$$\mathbf{l}_i = \mathbf{r}_i\mathbf{d}_i$$

and

$$\mathbf{x}_i = \mathbf{t}_i - \mathbf{r}_i\mathbf{d}_i$$

given that $\mathbf{d}_i$ is the total regional demand for industry ***i***'s product. Given the above formulae and data on regional demands by industry, one can calculate an accurate traditional aggregate economic base parameter by the following:

$$\mathbf{a} = \mathbf{l}/\mathbf{t} = \Sigma\mathbf{l}_i/\Sigma\mathbf{t}_i$$

Although accurate, this approach only facilitates the calculation of an aggregate multiplier for the entire region. That is, we cannot determine from this approach what the effects are on the various sectors of an economy. This is despite the fact that one must painstakingly calculate the regional demand as well as the degree to which they each industry is involved in nonbase activity in the region.

As a result, a different approach to multiplier estimation that takes advantage of the detailed demand and trade data was developed. This approach is called input-output analysis.

REGIONAL INPUT-OUTPUT ANALYSIS: A BRIEF HISTORY

The basic framework for input-output analysis originated nearly 250 years ago when François Quesenay published *Tableau Economique* in 1758. Quesenay's "tableau" graphically and numerically portrayed the relationships between sales and purchases of the various industries of an economy. More than a century later, his description was adapted by Leon Walras, who advanced input-output modeling by providing a concise theoretical formulation of an economic system (including consumer purchases and the economic representation of "technology").

It was not until the twentieth century, however, that economists advanced and tested Walras's work. Wassily Leontief greatly simplified Walras's theoretical formulation by applying the Nobel prize–winning assumptions that both technology and trading patterns were fixed over time. These two assumptions meant that the pattern of flows among industries in an area could be considered stable. These assumptions permitted Walras's formulation to use data from a single time period, which generated a great reduction in data requirements.

Although Leontief won the Nobel prize in 1973, he first used his approach in 1936 when he developed a model of the 1919 and 1929 U.S. economies to estimate the effects of the end of World War I on national employment. Recognition of his work in terms of its wider acceptance and use meant development of a standardized procedure for compiling the requisite data (today's national economic census of industries) and enhanced capability for calculations (i.e., the computer).

The federal government immediately recognized the importance of Leontief's development and has been publishing input-output tables of the U.S. economy since 1939. The most recently published tables are those for 1987. Other nations followed suit. Indeed, the United Nations maintains a bank of tables from most member nations with a uniform accounting scheme.

Framework

Input-output modeling focuses on the interrelationships of sales and purchases among sectors of the economy. Input-output is best understood through its most basic form, the *interindustry transactions table* or matrix. In this table (see figure 1 for an example), the column industries are consuming sectors (or markets) and the row industries are producing sectors. The content of a matrix cell is the value of shipments that the row industry delivers to the column industry. Conversely, it is the value of shipments that the column industry receives from the row industry. Hence, the interindustry transactions table is a detailed accounting of the disposition of the value of shipments in an economy. Indeed, the detailed accounting of the interindustry transactions at the national level is performed not so much to facilitate calculation of national economic impacts as it is to back out an estimate of the nation's gross domestic product.

FIGURE 1
Interindustry Transactions Matrix (Values)

	Agriculture	Manufacturing	Services	Other	Final Demand	Total Output
Agriculture	10	65	10	5	10	$100
Manufacturing	40	25	35	75	25	$200
Services	15	5	5	5	90	$120
Other	15	10	50	50	100	$225
Value Added	20	95	20	90		
Total Input	100	200	120	225		

For example, in figure 1, agriculture, as a producing industry sector, is depicted as selling $65 million of goods to manufacturing. Conversely, the table depicts that the manufacturing industry purchased $65 million of agricultural production. The sum across columns of the interindustry transaction matrix is called the *intermediate outputs vector*. The sum across rows is called the *intermediate inputs vector*.

A single *final demand* column is also included in Figure 1. Final demand, which is outside the square interindustry matrix, includes imports, exports, government purchases, changes in inventory, private investment, and sometimes household purchases.

The *value added* row, which is also outside the square interindustry matrix, includes wages and salaries, profit-type income, interest, dividends, rents, royalties, capital consumption allowances, and taxes. It is called value added because it is the difference between the total value of the industry's production and the value of the goods and nonlabor services that it requires to produce. Thus, it is the *value* that an industry *adds* to the goods and services it uses as inputs in order to produce output.

The value added row measures each industry's contribution to wealth accumulation. In a national model, therefore, its sum is better known as the gross domestic product (GDP). At the state level, this is known as the gross state product—a series produced by the U.S. Bureau of Economic Analysis and published in the Regional Economic Information System. Below the state level, it is known simply as the regional equivalent of the GDP—the gross regional product.

Input-output economic impact modelers now tend to include the household industry within the square interindustry matrix. In this case, the "consuming industry" is the household itself. Its spending is extracted from the final demand column and is appended as a separate column in the interindustry matrix. To maintain a balance, the income of households must be appended as a row. The main income of households is labor income, which is extracted from the value-added row. Modelers tend not to include other sources of household income in the household industry's row. This is not because such income is not attributed to households but rather because much of this other income derives from sources outside of the economy that is being modeled.

The next step in producing input-output multipliers is to calculate the *direct requirements matrix*, which is also called the technology matrix. The calculations are based entirely on data from

figure 1. As shown in figure 2, the values of the cells in the direct requirements matrix are derived by dividing each cell in a column of figure 1, the interindustry transactions matrix, by its column total. For example, the cell for manufacturing's purchases from agriculture is 65/200 = .33. Each cell in a column of the direct requirements matrix shows how many cents of each producing industry's goods and/or services are required to produce one dollar of the consuming industry's production and are called *technical coefficients*. The use of the terms "technology" and "technical" derive from the fact that a column of this matrix represents a recipe for a unit of an industry's production. It, therefore, shows the needs of each industry's production process or "technology."

FIGURE 2
Direct Requirements Matrix

	Agriculture	Manufacturing	Services	Other
Agriculture	.10	.33	.08	.02
Manufacturing	.40	.13	.29	.33
Services	.15	.03	.04	.02
Other	.15	.05	.42	.22

Next in the process of producing input-output multipliers, the *Leontief Inverse* is calculated. To explain what the Leontief Inverse is, let us temporarily turn to equations. Now, from figure 1 we know that the sum across both the rows of the square interindustry transactions matrix (**Z**) and the final demand vector (**y**) is equal to vector of production by industry (**x**). That is,

$$\mathbf{x} = \mathbf{Zi} + \mathbf{y}$$

where **i** is a summation vector of ones. Now, we calculate the direct requirements matrix (**A**) by dividing the interindustry transactions matrix by the production vector or

$$\mathbf{A} = \mathbf{Z}\mathbf{X}^{-1}$$

where $\mathbf{X}^{-1}$ is a square matrix with inverse of each element in the vector **x** on the diagonal and the rest of the elements equal to zero. Rearranging the above equation yields

$$\mathbf{Z} = \mathbf{AX}$$

where **X** is a square matrix with the elements of the vector **x** on the diagonal and zeros elsewhere. Thus,

$$\mathbf{x} = (\mathbf{AX})\mathbf{i} + \mathbf{y}$$

or, alternatively,

$$\mathbf{x} = \mathbf{Ax} + \mathbf{y}$$

solving this equation for **x** yields

$$\mathbf{x} = (\mathbf{I}-\mathbf{A})^{-1}\,\mathbf{y}$$

Total = Total = Final
Output Requirements Demand

The Leontief Inverse is the matrix $(\mathbf{I}-\mathbf{A})^{-1}$. It portrays the relationships between final demand and production. This set of relationships is exactly what is needed to identify the economic impacts of an event external to an economy.

Because it does translate the direct economic effects of an event into the total economic effects on the modeled economy, the Leontief Inverse is also called the *total requirements matrix.* The total requirements matrix resulting from the direct requirements matrix in the example is shown in figure 3.

FIGURE 3
Total Requirements Matrix

	Agriculture	Manufacturing	Services	Other
Agriculture	1.5	.6	.4	.3
Manufacturing	1.0	1.6	.9	.7
Services	.3	.1	1.2	.1
Other	.5	.3	.8	1.4
Industry Multipliers	.33	2.6	3.3	2.5

In the direct or technical requirements matrix in Figure 2, the technical coefficient for the manufacturing sector's purchase from the agricultural sector was .33, indicating the 33 cents of agricultural products must be directly purchased to produce a dollar's worth of manufacturing products. The same "cell" in Figure 3 has a value of .6. This indicates that for every dollar's worth of product that manufacturing ships out of the economy (i.e., to the government or for export), agriculture will end up increasing its production by 60 cents. The sum of each column in the total requirements matrix is the *output multiplier* for that industry.

Multipliers

A *multiplier* is defined as the system of economic transactions that follow a disturbance in an economy. Any economic disturbance affects an economy in the same way as does a drop of water in a still pond. It creates a large primary "ripple" by causing a *direct* change in the purchasing patterns of affected firms and institutions. The suppliers of the affected firms and institutions must change their purchasing patterns to meet the demands placed upon them by the firms originally affected by the economic disturbance, thereby creating a smaller secondary "ripple." In turn, those who meet the needs of the suppliers must change their purchasing patterns to meet the demands placed upon them by the suppliers of the original firms, and so on; thus, a number of subsequent "ripples" are created in the economy.

The multiplier effect has three components—direct, indirect, and induced effects. Because of the pond analogy, it is also sometimes referred to as the *ripple effect*.

- A *direct effect* (the initial drop causing the ripple effects) is the change in purchases due to a change in economic activity.

- An *indirect effect* is the change in the purchases of suppliers to those economic activities directly experiencing change.

- An *induced effect* is the change in consumer spending that is generated by changes in labor income within the region as a result of the direct and indirect effects of the economic activity. Including households as a column and row in the interindustry matrix allows this effect to be captured.

Extending the Leontief Inverse to pertain not only to relationships between *total* production and final demand of the economy but also to *change*s in each permits its multipliers to be applied to many types of economic impacts. Indeed, in impact analysis the Leontief Inverse lends itself to the drop-in-a-pond analogy discussed earlier. This is because the Leontief Inverse multiplied by a change in final demand can be estimated by a power series. That is,

$$(\mathbf{I}-\mathbf{A})^{-1}\,\Delta\mathbf{y} = \Delta\mathbf{y} + \mathbf{A}\,\Delta\mathbf{y} + \mathbf{A}(\mathbf{A}\,\Delta\mathbf{y}) + \mathbf{A}(\mathbf{A}(\mathbf{A}\,\Delta\mathbf{y})) + \mathbf{A}(\mathbf{A}(\mathbf{A}(\mathbf{A}\,\Delta\mathbf{y}))) + \ldots$$

Assuming that $\Delta\mathbf{y}$—the change in final demand—is the "drop in the pond," then succeeding terms are the ripples. Each "ripple" term is calculated as the previous "pond disturbance" multiplied by the direct requirements matrix. Thus, since each element in the direct requirements matrix is less than one, each ripple term is smaller than its predecessor. Indeed, it has been shown that after calculating about seven of these ripple terms that the power series approximation of impacts very closely estimates those produced by the Leontief Inverse directly.

In impacts analysis practice, $\Delta\mathbf{y}$ is a single column of expenditures with the same number of elements as there are rows or columns in the direct or technical requirements matrix. This set of elements is called an *impact vector*. This term is used because it is the *vector* of numbers that is used to estimate the *economic impacts* of the investment.

There are two types of changes in investments, and consequently economic impacts, generally associated with projects—*one-time impacts* and *recurring impacts*. One-time impacts are impacts that are attributable to an expenditure that occurs once over a limited period of time. For example, the impacts resulting from the construction of a project are one-time impacts. Recurring impacts are impacts that continue permanently as a result of new or expanded ongoing expenditures. The ongoing operation of a new train station, for example, generates recurring impacts to the economy. Examples of changes in economic activity are investments in the preservation of old homes, tourist expenditures, or the expenditures required to run a historical site. Such activities are considered changes in final demand and can be either positive or negative. When the activity is not made in an industry, it is generally not well represented by the input-output model. Nonetheless, the activity can be represented by a special set of elements that are similar to a column of the transactions matrix. This set of elements is called an economic

disturbance or impact vector. The latter term is used because it is the vector of numbers that is used to estimate the impacts. In this study, the impact vector is estimated by multiplying one or more economic *translators* by a dollar figure that represents an investment in one or more projects. The term translator is derived from the fact that such a vector *translates* a dollar amount of an activity into its constituent purchases by industry.

One example of an industry multiplier is shown in figure 4. In this example, the activity is the preservation of a historic home. The *direct impact* component consists of purchases made specifically for the construction project from the producing industries. The *indirect impact* component consists of expenditures made by producing industries to support the purchases made for this project. Finally, the *induced impact* component focuses on the expenditures made by workers involved in the activity on-site and in the supplying industries.

FIGURE 4
Components of the Multiplier for the
Historic Rehabilitation of a Single-Family Residence

DIRECT IMPACT	INDIRECT IMPACT	INDUCED IMPACT
Excavation/Construction Labor Concrete Wood Bricks Equipment Finance and Insurance	Production Labor Steel Fabrication Concrete Mixing Factory and Office Expenses Equipment Components	Expenditures by wage earners on-site and in the supplying industries for food, clothing, durable goods, entertainment

REGIONAL INPUT-OUTPUT ANALYSIS

Because of data limitations, regional input-output analysis has some considerations beyond those for the nation. The main considerations concern the depiction of regional technology and the adjustment of the technology to account for interregional trade by industry.

In the regional setting, local technology matrices are not readily available. An accurate region-specific technology matrix requires a survey of a representative sample of organizations for each industry to be depicted in the model. Such surveys are extremely expensive.[1] Because of the expense, regional analysts have tended to use national technology as a surrogate for regional technology. This substitution does not affect the accuracy of the model as long as local industry technology does not vary widely from the nation's average.[2]

[1]The most recent statewide survey-based model was developed for the State of Kansas in 1986 and cost on the order of $60,000 (in 1990 dollars). The development of this model, however, leaned heavily on work done in 1965 for the same state. In addition the model was aggregated to the 35-sector level, making it inappropriate for many possible applications since the industries in the model do not represent the very detailed sectors that are generally analyzed.

[2]Only recently have researchers studied the validity of this assumption. They have found that large urban areas may have technology in some manufacturing industries that differs in a statistically significant way from the national average. As will be discussed in a subsequent paragraph, such differences may be unimportant after accounting for trade patterns.

Even when local technology varies widely from the nation's average for one or more industries, model accuracy may not be affected much. This is because interregional trade may mitigate the error that would be induced by the technology. That is, in estimating economic impacts via a regional input-output model, national technology must be regionalized by a vector of regional purchase coefficients,[3] **r**, in the following manner:

$$(\mathbf{I}-\mathbf{rA})^{-1}\,\mathbf{r}\cdot\Delta\mathbf{y}$$

or

$$\mathbf{r}\cdot\Delta\mathbf{y} + \mathbf{rA}\,(\mathbf{r}\cdot\Delta\mathbf{y}) + \mathbf{rA}(\mathbf{rA}\,(\mathbf{r}\cdot\Delta\mathbf{y})) + \mathbf{rA}(\mathbf{rA}(\mathbf{rA}\,(\mathbf{r}\cdot\Delta\mathbf{y}))) + \ldots$$

where the vector-matrix product **rA** is an estimate of the region's direct requirements matrix. Thus, if national technology coefficients—which vary widely from their local equivalents—are multiplied by small RPCs, the error transferred to the direct requirements matrices will be relatively small. Indeed, since most manufacturing industries have small RPCs and since technology differences tend to arise due to substitution in the use of manufactured goods, technology differences have generally been found to be minor source error in economic impact measurement. Instead, RPCs and their measurement error due to industry aggregation have been the focus of research on regional input-output model accuracy.

A COMPARISON OF THREE MAJOR REGIONAL ECONOMIC IMPACT MODELS

In the United States there are three major vendors of regional input-output models. They are U.S. Bureau of Economic Analysis's (BEA) RIMS II multipliers, Minnesota IMPLAN Group Inc.'s (MIG) IMPLAN Pro model, and CUPR's own RECON™ I–O model. CUPR has had the privilege of using them all. (PEIM builds from the RSRC PC I–O model, which in turn built upon the PC I–O model produced by the Regional Science Research Corporation's (RSRC).)

Although the three systems have important similarities, there are also significant differences that should be considered before deciding which system to use in a particular study. This document compares the features of the three systems. Further discussion can be found in Brucker, Hastings, and Latham's article in the Summer 1987 issue of *The Review of Regional Studies* entitled "Regional Input-Output Analysis: A Comparison of Five Ready-Made Model Systems." Since that date, CUPR and MIG have added a significant number of new features to PC I–O (now, RECON™ I–O) and IMPLAN, respectively.

Model Accuracy

RIMS II, IMPLAN, and RECON™ I–O all employ input-output (I–O) models for estimating impacts. All three regionalized the U.S. national I–O technology coefficients table at the highest levels of disaggregation (more than 500 industries). Since aggregation of sectors has been shown to be an important source of error in the calculation of impact multipliers, the retention of

[3]A regional purchase coefficient (RPC) for an industry is the proportion of the region's demand for a good or service that is fulfilled by local production. Thus, each industry's RPC varies between zero (0) and one (1), with one implying that all local demand is fulfilled by local suppliers. As a general rule, agriculture, mining, and manufacturing industries tend to have low RPCs, and both service and construction industries tend to have high RPCs.

maximum industrial detail in these regional systems is a positive feature that they share. The systems diverge in their regionalization approaches, however. The difference is in the manner that they estimate regional purchase coefficients (RPCs), which are used to regionalize the technology matrix. An RPC is the proportion of the region's demand for a good or service that is fulfilled by the region's own producers rather than by imports from producers in other areas. Thus, it expresses the proportion of the purchases of the good or service that do not leak out of the region, but rather feed back to its economy, with corresponding multiplier effects. Thus, the accuracy of the RPC is crucial to the accuracy of a regional I–O model, since the regional multiplier effects of a sector vary directly with its RPC.

The techniques for estimating the RPCs used by CUPR and MIG in their models are theoretically more appealing than the location quotient (LQ) approach used in RIMS II. This is because the former two allow for crosshauling of a good or service among regions and the latter does not. Since crosshauling of the same general class of goods or services among regions is quite common, the CUPR-MIG approach should provide better estimates of regional imports and exports. Statistical results reported in Stevens, Treyz, and Lahr (1989) confirm that LQ methods tend to overestimate RPCs. By extension, inaccurate RPCs may lead to inaccurately estimated impact estimates.

Further, the estimating equation used by CUPR to produce RPCs should be more accurate than that used by MIG. The difference between the two approaches is that MIG estimates RPCs at a more aggregated level (two-digit SICs, or about 86 industries) and applies them at a desegregate level (over 500 industries). CUPR both estimates and applies the RPCs at the most detailed industry level. The application of aggregate RPCs can induce as much as 50 percent error in impact estimates (Stevens and Lahr, 1988).

Although both RECON™ I–O and IMPLAN use an RPC-estimating technique that is theoretically sound and update it using the most recent economic data, some practitioners question their accuracy. The reasons for doing so are three-fold. First, the observations currently used to estimate their implemented RPCs are based on 20-years old trade relationships—the Commodity Transportation Survey (CTS) from the 1977 Census of Transportation. Second, the CTS observations are at the state level. Therefore, RPC's estimated for substate areas are extrapolated. Hence, there is the potential that RPCs for counties and metropolitan areas are not as accurate as might be expected. Third, the observed CTS RPCs are only for shipments of goods. The interstate provision of services is unmeasured by the CTS. IMPLAN replies on relationships from the 1977 U.S. Multiregional Input-Output Model that are not clearly documented. RECON™ I–O relies on the same econometric relationships that it does for manufacturing industries but employs expert judgment to construct weight/value ratios (a critical variable in the RPC-estimating equation) for the nonmanufacturing industries.

The fact that BEA creates the RIMS II multipliers gives it the advantage of being constructed from the full set of the most recent regional earnings data available. BEA is the main federal government purveyor of employment and earnings data by detailed industry. It therefore has access to the fully disclosed and disaggregated versions of these data. The other two model systems rely on older data from *County Business Patterns* and Bureau of Labor Statistic's ES202

forms, which have been "improved" by filling-in for any industries that have disclosure problems (this occurs when three or fewer firms exist in an industry or a region).

Model Flexibility

For the typical user, the most apparent differences among the three modeling systems are the level of flexibility they enable and the type of results that they yield. RECON™ I–O allows the user to make changes in individual cells of the 515-by-515 technology matrix as well as in the 11 515-sector vectors of region-specific data that are used to produce the regionalized model. The 11 sectors are: output, demand, employment per unit output, labor income per unit output, total value added per unit of output, taxes per unit of output (state and local), nontax value added per unit output, administrative and auxiliary output per unit output, household consumption per unit of labor income, and the RPCs. Te PC I–O model tends to be simple to use. Its User's Guide is straightforward and concise, providing instruction about the proper implementation of the model as well as the interpretation of the model's results.

The software for IMPLAN Pro is Windows-based, and its User's Guide is more formalized. Of the three modeling systems, it is the most user-friendly. The Windows orientation has enabled MIG to provide many more options in IMPLAN without increasing the complexity of use. Like RECON™ I–O, IMPLAN's regional data on RPCs, output, labor compensation, industry average margins, and employment can be revised. It does not have complete information on tax revenues other than those from indirect business taxes (excise and sales taxes), and those cannot be altered. Also like RECON™ I–O, IMPLAN allows users to modify the cells of the 538-by-538 technology matrix. It also permits the user to change and apply price deflators so that dollar figures can be updated from the default year, which may be as many as four years prior to the current year. The plethora of options, which are advantageous to the advanced user, can be extremely confusing to the novice. Although default values are provided for most of the options, the accompanying documentation does not clearly point out which items should get the most attention. Further, the calculations needed to make any requisite changes can be more complex than those needed for the RECON™ I–O model. Much of the documentation for the model dwells on technical issues regarding the guts of the model. For example, while one can aggregate the 538-sector impacts to the one- and two-digit SIC level, the current documentation does not discuss that possibility. Instead, the user is advised by the Users Guide to produce an aggregate model to achieve this end. Such a model, as was discussed earlier, is likely to be error ridden.

For a region, RIMS II typically delivers a set of 38-by-471 tables of multipliers for output, earnings, and employment; supplementary multipliers for taxes are available at additional cost. Although the model's documentation is generally excellent, use of RIMS II alone will not provide proper estimates of a region's economic impacts from a change in regional demand. This is because no RPC estimates are supplied with the model. For example, in order to estimate the impacts of rehabilitation, one not only needs to be able to convert the engineering cost estimates into demands for labor as well as for materials and services by industry, but must also be able to estimate the percentage of the labor income, materials, and services which will be provided by the region's households and industries (the RPCs for the demanded goods and services). In most cases, such percentages are difficult to ascertain; however, they are provided in the RECON™ I–O and IMPLAN models with simple triggering of an option. Further, it is impossible to change

any of the model's parameters if superior data are known. This model ought not to be used for evaluating any project or event where superior data are available or where the evaluation is for a change in regional demand (a construction project or an event) as opposed to a change in regional supply (the operation of a new establishment).

Model Results

Detailed total economic impacts for about 500 industries can be calculated for jobs, labor income, and output from RECON™ I–O and IMPLAN only. These two modeling systems can also provide total impacts as well as impacts at the one- and two-digit industry levels. RIMS II provides total impacts and impacts on only 38 industries for these same three measures. Only the manual for RECON™ I–O warns about the problems of interpreting and comparing multipliers and any measures of output, also known as the value of shipments.

As an alternative to the conventional measures and their multipliers, RECON™ I–O and IMPLAN provide results on a measure known as "value added." It is the region's contribution to the nation's gross domestic product (GDP) and consists of labor income, nonmonetary labor compensation, proprietors' income, profit-type income, dividends, interest, rents, capital consumption allowances, and taxes paid. It is, thus, the region's production of wealth and is the single best economic measure of the total economic impacts of an economic disturbance.

In addition to impacts in terms of jobs, employee compensation, output, and value added, IMPLAN provides information on impacts in terms of personal income, proprietor income, other property-type income, and indirect business taxes. RECON™ I–O breaks out impacts into taxes collected by the local, state, and federal governments. It also provides the jobs impacts in terms of either about 90 or 400 occupations at the users request. It goes a step further by also providing a return-on-investment-type multiplier measure, which compares the total impacts on all of the main measures to the total original expenditure that caused the impacts. Although these latter can be readily calculated by the user using results of the other two modeling systems, they are rarely used in impact analysis despite their obvious value.

In terms of the format of the results, both RECON™ I–O and IMPLAN are flexible. On request, they print the results directly or into a file (Excel® 4.0, Lotus 123®, Word® 6.0, tab delimited, or ASCII text). It can also permit previewing of the results on the computer's monitor. Both now offer the option of printing out the job impacts in either or both levels of occupational detail.

RSRC Equation

The equation currently used by RSRC in estimating RPCs is reported in Treyz and Stevens (1985). In this paper, the authors show that they estimated the RPC from the 1977 CTS data by estimating the demands for an industry's production of goods or services that are fulfilled by local suppliers (*LS*) as

$$LS = D^{e(-1/x)}$$

and where for a given industry

$$x = k\, Z_1^{a1} Z_2^{a2}\, P_j\, Z_j^{aj}$$ and D is its total local demand.

Since for a given industry RPC = LS/D then

$$\ln\{-1/[\ln(\ln LS/\ln D)]\} = \ln k + a_1 \ln Z_1 + a_2 \ln Z_2 + S_j\, a_j \ln Z_j$$

which was the equation that was estimated for each industry.

This odd nonlinear form not only yielded high correlations between the estimated and actual values of the RPCs, it also assured that the RPC value ranges strictly between 0 and 1. The results of the empirical implementation of this equation are shown in Treyz and Stevens (1985, table 1). The table shows that total local industry demand (Z_1), the supply/demand ratio (Z_2), the weight/value ratio of the good (Z_3), the region's size in square miles (Z_4), and the region's average establishment size in terms of employees for the industry compared to the nation's (Z_5) are the variables that influence the value of the RPC across all regions and industries. The latter of these maintain the least leverage on RPC values.

Because the CTS data are at the state level only, it is important for the purposes of this study that the local industry demand, the supply/demand ratio, and the region's size in square miles are included in the equation. They allow the equation to extrapolate the estimation of RPCs for areas smaller than states. It should also be noted here that the CTS data only cover manufactured goods. Thus, although calculated effectively making them equal to unity via the above equation, RPC estimates for services drop on the weight/value ratios. A very high weight/value ratio like this forces the industry to meet this demand through local production. Hence, it is no surprise that a region's RPC for this sector is often very high (0.89). Similarly, hotels and motels tend to be used by visitors from outside the area. Thus, a weight/value ratio on the order of that for industry production would be expected. Hence, an RPC for this sector is often about 0.25.

The accuracy of CUPR's estimating approach is exemplified best by this last example. Ordinary location quotient approaches would show hotel and motel services serving local residents. Similarly, IMPLAN RPCs are built from data that combine this industry with eating and drinking establishments (among others). The results of such aggregation process is an RPC that represents neither industry (a value of about 0.50) but which is applied to both. In the end, not only is the CUPR's RPC-estimating approach the most sound, but it is also widely acknowledged by researchers in the field as being state of the art.

Advantages and Limitations of Input-Output Analysis

Input-output modelinPg is one of the most accepted means for estimating economic impacts. This is because it provides a concise and accurate means for articulating the interrelationships among industries. The models can be quite detailed. For example, the current U.S. model currently has more than 500 industries representing many four-digit Standard Industrial Classification (SIC) codes. The CUPR's model used in this study has 515 sectors. Further, the industry detail of input-output models provides not only a consistent and systematic approach but also more accurately assesses multiplier effects of changes in economic activity. Research has shown that results from more aggregated economic models can have as much as 50 p ercent error inherent in them. Such large errors are generally attributed to poor estimation of regional trade flows resulting from the aggregation process.

Input-output models also can be set up to capture the flows among economic regions. For example, the model used in this study can calculate impacts for a county as well as the total Missouri state economy.

The limitations of input-output modeling should also be recognized. The approach makes several key assumptions. First, the input-output model approach assumes that there are no economies of scale to production in an industry; that is, the proportion of inputs used in an industry's production process does not change regardless of the level of production. This assumption will not work if the technology matrix depicts an economy of a recessional economy (e.g., 1982) and the analyst is attempting to model activity in a peak economic year (e.g., 1989). In a recession year, the labor-to-output ratio tends to be excessive because firms are generally reluctant to lay off workers when they believe an economic turnaround is about to occur.

A less-restrictive assumption of the input-output approach is that technology is not permitted to change over time. It is less restrictive because the technology matrix in the United States is updated frequently and, in general, production technology does not radically change over short periods.

Finally, the technical coefficients used in most regional models are based on the assumption that production processes are spatially invariant and are well represented by the nation's average technology. In a region as large and diverse as Missouri, this assumption is likely to hold true.

APPENDIX C

Estimating Statewide Historic Rehabilitation Spending in Missouri

This appendix estimates the dollar amount of historic rehabilitation of buildings (as defined in the main body of Chapter 2) effected in Missouri in 2000—the last full year for which reasonable data were available for the current study. In that year, the 469 Missouri communities reporting to the U.S. Bureau of the Census issued permits for $2.6 billion of new residential building construction.

Unfortunately, no central repository exists for data on the value of building rehabilitation permits or for new nonresidential building permits issued by Missouri communities. Hence, past relationships for each community between permits for new residential building and both new nonresidential and rehabilitation construction were applied to the 2000 data for new residential construction.

The results of applying the relationships for the years 1990–1994 are shown in exhibit C-1. Accordingly, about $1.7 billion in permits for new nonresidential construction and $2.1 billion in permits for rehabilitation construction were issued in 2000 in Missouri. Of the $2.1 billion, about $0.48 billion was issued for residential properties and $1.6 billion for nonresidential properties. $0.08 billion was issued for historic residential properties. Of the $0.08 billion, about 20 percent (or $0.15 billion) was issued for multifamily units: the rest, $0.64 billion, was issued for single-family units.

The next step was to use the results in exhibit C-1 to develop a scheme to estimate the incidence of historic rehabilitation for all 469 Missouri communities that reported values of permit issuance between 1990 and 2000. In a prior study for Texas, the study team tested various methods, including several statistical approaches grounded in regression analysis. In the end, the simplest technique was selected, not only by principle of occam's razor (which suggests that when in wavering between two approaches choose the simplest), but also because it performed better in estimating actual dollar amounts of rehabilitation activity in a set of selected cities.

The method used to estimate the incidence levels employs 1990 Census data on the age of housing by municipality. The incidence level is thus measured by taking the ratio of housing built before 1940 to that built before 1970.[1] The idea behind this measure is that housing built before 1970 maintains the lion's share of the value of rehabilitation construction, simply by virtue of its age. That is, housing that is less than 25 years old tends not to receive many alterations or even repairs. This assumption appears reasonable. The part of this ratio that seems less reasonable, at least at first glance, is its numerator—the amount of housing built before 1940. This is because its application seems to assume that all housing built prior to 1940 is "historic" in the sense that is used in this report. That is, in order for this ratio to serve well as a measure of incidence of historic rehabilitation it would appear that all pre-1940 housing in a community would have to be designated historic, or be in a district that is designated historic, or be eligible for

[1]The incidence of nonresidential historic rehabilitation was calibrated to be half that of residential. This is also embraced by findings reported elsewhere in this study that reveal nonresidential properties are less apt to realize enhanced value after being designated historic.

designation. Thus, the numbers were downwardly adjusted to two third of the estimated values.

Evidence from a recent New Jersey study (Listokin and Lahr 1997) suggests that the incidence of historic building rehabilitation in rural areas is likely to be about half that in major urban areas. This finding was based on case study work. In addition, it is consistent with economic rationale, which suggests that rarer commodities should have higher value. Indeed, in Missouri metropolitan areas, historic buildings are relatively "scarce items" because the Missouri economy has tended to grow faster than that of the rest of the nation since 1940. Further, much of the state's economic growth has occurred in metropolitan areas. As a result, the New Jersey urban/rural differential for the incidence of historic residential building rehabilitation was applied to Missouri communities as well. (We recognize the hazards in comparing these two states.) Hence, the incidence in a nonmetropolitan community was estimated to be half that of a "similarly endowed" metropolitan community.

After applying the community-level incidence ratios to the respective estimates of rehabilitation activity, final estimates of private historic preservation activity were obtained. These must be interpreted as *gross estimates*.

In addition to the rehabilitation activity as described above, which is effected in privately owned buildings, the rehabilitation of government buildings also occurred. Governments do not apply for permits when undertaking construction. Hence, their rehabilitation activity is counted separately. Unfortunately, there is no central repository of records for such activity within Missouri. Thus, to obtain an estimate we used the average of the relative incidence of historic rehabilitation activity to all other historic rehabilitation activity obtained in the New Jersey and Texas studies. The result was 11.5 percent. That is, we estimated that an additional 11.5 percent of the dollar amount of historic rehabilitation effort ($36 million) in U.S. used annually to preserve historical government structures.

The table below summarizes the results of the method described in this appendix. These results are as follows:

- In 2000, about $2.1 billion was spent rehabilitating structures in Missouri. Of this $0.48 billion was spent on residential properties and $1.6 billion on nonresidential properties.
- Of the $2.1 billion, about $310 million (14.9 percent) was spent on privately owned historic properties. Most (nearly 74%) of the activity was on nonresidential properties.
- The estimated average incidence of historic rehabilitation was nearly 16.6 percent for residential structures and nearly 14.3 percent for nonresidential structures.
- In addition to the $310 million in rehabilitation of private properties, $35.6 million in historic rehabilitation is estimated to be effected on government buildings each year.

EXHIBIT C-1
Estimated Total and Historic Building Rehabilitation in Missouri (2000)

Property Type	Estimated Total Rehabilitation (in $ million)	Estimated Historic Rehabilitation (in $ million)	Historic Rehabilitation as % of Total Rehabilitation
Private			
Residential	$479.5	$79.6	16.6%
Nonresidential	$1,606.2	$230.3	14.3%
Total private	$2,085.7	$309.9	14.9%
Public	-	$35.6	-
Total	-	$345.5	-